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Parkin, Jeffrey

Thursday, May 15, 2003 6:41 PM STIC-Biotech/ChemLib

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Please search **SEQ ID NOS.:** 1, 3, 4, 5, 117, 118, 119, 534, 535, 536, 537, 538, 540, and 541 from the aformentioned application (09/623,533) v. all relevant databases including interference. Please note that these sequences are all close variations of the same parent peptide.

Place results on both paper and disk.

Thanks!

**JSP** AU 1648 CM01-8E15 308-2227



roint of Contact: **Toby Port** Technical Info. Specialist CM1 6A04 703-308-3534

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InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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0993A6; PRELIMINARY; PRT; 645 AA.
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-DEC-2001 (TrEMBLE1. 19, Last annotation update)
                                                                                                                                                                                                                                                                                  MEDLINE=21192672; PubMed=11287644;
Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M.,
White S.W., Doherty P.C., Hurwitz J.L.;
"Localization of CD4+ T cell epitope hotspots to exposed strands of
"Localization of CD4+ T cell epitope hotspots to exposed strands of
                                                                                                                        SEQUENCE
                                                                                                                                    Transmembrane.
                                                                                                                                                               AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;
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Proc. Natl. Acad. Sci. U.S.A. 98:4587-4592(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; Retroid viruses; Retroviridae; Lentivirus NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Truncated envelope glycoprotein (Fragment).
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   608.
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                              1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                          ch 100.0%; l Similarity 100.0%; 35; Conservative (
                                                                                                                      645 AA;
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                                                             0,
                                                          Score 188; DB 15;
Pred. No. 8.8e-15;
Mismatches 0;
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 642
                                                            Indels
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Q70607;
Q1-NOV-1996
                                                                                                                                                                                     Reltz M., Hall L., Robert-Guroit M., Laurence, B., Rong L., Weiss S., Waters D., Gallo R., B. Shaw G., Kong L., Weiss S., Waters D., Gallo R., B. Shaw G., Kong L., Weiss S., Waters D., Gallo R., B. Shaw G., Kong L., Weiss S., Waters D., Gallo R., B. Shaw G., Kong L., Weiss S., Waters D., Gallo R., B. Shaw G., Weiss S., Waters D., Gallo R., B., Ballo R., 
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InterPro; IPR0007328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
NON_TER 747
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SEQUENCE 747 AA; 84250 MW; 732E836A52245F14 CRC64;
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MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Viruses; Retroid viruses; Retroviridae;
RCBI_TaxID=11676;
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01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Envelope glycoprotein (Fragment).
Mulder K.E.; submitted (JUL-1994) to the EMBL; U12032; AAA76668.1; -.
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NCBI_TaxID=11676;
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InterPro; IPRO00377; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
NON TER 752 752
SEQUENCE 752 AA; 84894 MW; 8B30AFR94017RAFA 7576.
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Pfam; PF00517; GP41; 1.

AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.

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          Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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Viruses; Retroid NCBI_TaxID=11676;
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IPR000777; GP120.
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                             InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein;
NON_TER 752 752
SEQUENCE 752 AA; 84894 MW; 8B3
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                                                                                           SEQUENCE
                                                                                                                                                                                                                       STRAIN-LW87-2;
                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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Viruses; Retroid viruses; Retroviridae;
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                                                                                                                                                                                                                                                                                                                                                                                      Lentivirus
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Q78243;
Q1-NQV-1996
MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M.,
Shaw G., Kong L., Weiss S., Waters D
"Viral variability and serum antibod
                                                                                       Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS: Coat protein; Glycoprotein; Polyprotein; Transmembrane.
SEQUENCE 851 AA; 96630 MW; 1A3767B9B7E98027 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.

MEDLINE=89352106; PubMed=2765297;
Federico M., Titti F., Butto S., Orecchia A.

Macchi B., Mangiano N., Verani P., Rossi G.;

"Biological and molecular characterization o
                                                    STRAIN=LW90-
                                                                SEQUENCE FROM N.A.
                                                                                                                                ENV
                                                                                                                                            Envelope
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"Variability of HIV-1 virus:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Biological and molecular characterization of producer a producer clones from HUT-78 infected with a patient HIV AIDS Res. Hum. Retroviruses 5:385-396(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Carlini F., Federic M., Equestre M., Ricci S., Verani P., Rossi G.B.; Verani P., Rossi G.B.; "Sequence analysis of HIV-1 proviral DNA from chronically infected HUT-78 cellular clone.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; Retroid
NCBI_TaxID=11676;
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Carlini F., Federic
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Viruses; Retroid viruses; Retroviridae;
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InterPro; IPR000777; GP120.
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35; Conserv
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                                                                                                                                         glycoprotein.
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                                                                                                                                                       (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                (TrEMBLrel.
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Pred. No. 1.2e-14;
); Mismatches 0;
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 Lautenberger J., Hahn
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|y response in a laborat
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Dai L.C., Litton
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Submitted
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Submitted
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SEQUENCE FROM N.A.
MEDLINE-86281827; PubMed-3016298;
MEDLINE-866281827; PubMed-3016298;
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Production of acquired retrovirus in human and molecular clone.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Envelope protein;
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InterPro; IPR000777; GP120.
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AIDS Res. Hum. Retroviruses
                                                                                                                                                                                                                                                                 J. Virol. 66:3151-3154(1992).
EMBL; M19921; AAA44992.1; -.
                                                                                                                                                                                                                                                                                                                                                    dEDLINE-92219400; runned to the first to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Martin M.A.;
                                                                                                                                                                                                       InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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ymphocytes.";
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PF00517; GP41; Coat protein; G
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                                                                                        protein;
854 AA;
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                                                                                        Glycoprotein; Polyprotein; Transmembrane 97124 MW; ABA0AlBF36D5595A CRC64;
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ruses 10:1143-1155(1994).
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virus type 1 at amino acid
CD8+ A24-restricted cytotox
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RESULT 11
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Best Local :
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Q72502:
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01-NOV-1996 (TrEMBLrel. C
01-DEC-2001 (TrEMBLrel. 1
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CONFLICT
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Pfam; pr00517; Gp41; 1.
ALDS; Coat protein; Glyco
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InterPro;
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                                                  Viruses; Retroid
NCBI_TaxID=57667;
                                                                          Simian-Human immunodeficiency virus.
Viruses; Retroid viruses; Retroviridae;
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EMBL; U26942; AAB60578.1;
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Virology 213:80-86(1995).
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Viruses: Retroid viruses:
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SEQUENCE FROM N.A. MEDLINE=99098984;
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IPR000777; GP120.
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214 214 H ->
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es; Retroviridae;
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-> L (IN REF. 2).
-> S (IN REF. 2).
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FF2264B3841D1220 CRC64;
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Sodroski J
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                                                                                                                                                 Submitted (JUN-1996) to the EMBL/GenBank/DDBJ EMBL; D86068; BAA12995.1; ... InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120. Pfam; PF00516; GP120; 1. Pfam; PF00517; GP41; 1. AIDS; Coat protein; Glycoprotein; Polyprotein; AIDS; Coat protein; Glycoprotein; Polyprotein;
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01-DEC-2001
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01-NOV-1996
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J. Virol. 73:976-984(1999).
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NCBI_TaxID=11676;
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Viruses; Retroid viruses; Retroviridae;
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e_T., Halloran M., 1
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llarity 100.0%;
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Fanton J.W., Axthelm M.K., Letvin N.L.,
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Pred. No. 1.2e-14;
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Pred. No. 1.2e-14;
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Best Local :
          InterPro; IPR000328; I
InterPro; IPR000777; G
Pfam; PF00516; GP120;
Pfam; PF00517; GP41; J
AIDS; Coat protein; G
                                                                                                                                                                                                                                                                                                 090178
090178;
01-NOV-1998
01-NOV-1998
01-DEC-2001
                                                                                                                                                             selected infected
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01-NOV-1996
01-DEC-2001
                              "Spontaneous activation of human immunodeficiency virus immunotoxin-resistant variant T cell line."; Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases. EMBL; AF070521; AAC28452.1: ... Interpro; IPR000328; Env_GP41. Interpro; IPR000777; GP120. Pfam; PF00516; GP120; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  074090
                                                                                                              SEQUENCE FROM N.A. Fang H., Pincus S.H.;
                                                                                                                                                                                                                                         Viruses; Retroid
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                               ENV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (JUN-1996) to the EMEL; D86069; BAA13003.1; -
InterPro; IPR000328; Env GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=90101366; PubMed=1688473; Cloyd M.W., Moore B.E.; "Spectrum of Biological Properties
                                                                                                                                                                                                         MEDLINE=95074930;
                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                      Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-PM213;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Viruses;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENV
                                                                                                                                                                                  "Unique insertion sequence
                                                                                                                                                                                              Fang
                                                                                                                                                                                                                                                               Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [watani Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM
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; PF00517; GP41; 1.
; Coat protein; Glyco;
ENCE 856 AA; 97396
                                                                                                                                                                                                                                                                                                                                                                                                                                                 35; Conser
                                                                                                                                                             with immunotoxins T cells.";
                                                                                                                                                                                             Pincus
                                                                                                                                                                                                                                                                                      glycoprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Retroid viruses;
 protein;
854 AA;
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                                                                                                                                                                                                                                                      viruses;
                                                                                                                                                                                                       PubMed=7983770;
Glycoprotein;
96885 MW; 08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glycoprotein; Polyprotein; Transmembrane 97396 MW; FE3E784C423C108C CRC64;
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                                                                                                                                                                                                                                                      Retroviridae;
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                                                                                                                                                                     and pattern of CD4 expression in variants from human immunodeficiency virus type 1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Last annotation update)
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Pred. No. 1.2
0; Mismatches
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0808F3AED27C693B
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No. 1.2e-14;
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           Transmembrane
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RESULT 15
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X MEDIINE-96013815; pubMed=7474132;

XDuensing T.D., Fang H., Dorward D.W., Pincus S.H.;

The processing of the envelope glycoprotein gp160 in immunotoxin-

resistant cell lines chronically infected with human immunodeficiency

revirus type 1 ";

XL J. Virol. 69:7122-7131(1995).

REMBL; L42371; AAA96326.1; -..

REMBL; L42371; AAA96326.1; -..

REMBL; L42371; AAA96326.1; -..

REMBL; L72371; AA
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Best Local Similarity 97.9
Matches 34; Conservative
                                                                                                                                                                                  Query Match 97.9%;
Best Local Similarity 97.1%;
Matches 34; Conservative 1
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078705; O1-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENV.
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- 1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35.
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97.18;
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Pred. No. 3.6e-14;
1; Mismatches 0;
                                                                                                                                                                                  Score 184; DB 15; Length 854;
Pred. No. 3.6e-14;
1; Mismatches 0; Indels
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arch completed: May 16, 2003, 11:19:45 time: 26.5835 secs

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Result
No.
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Maximum
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and is derived by analysis of the total score distribution
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                                                                                                                                                                             188
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1: /cgn2_6/ptodata/1,
2: /cgn2_6/ptodata/1,
3: /cgn2_6/ptodata/1,
4: /cgn2_6/ptodata/1,
5: /cgn2_6/ptodata/1,
6: /cgn2_6/ptodata/1,
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length: 2000000000
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188
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103.919 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
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US-08-073-028-74
US-08-448-223B-234
US-08-544-616-74
US-08-524-616-74
US-09-082-279B-638
US-09-082-279B-638
US-09-315-304B-638
US-09-315-304B-638
US-09-315-304B-799
US-08-486-099-1
US-08-486-099-1
US-08-09-071-877-1
US-08-09-071-877-1
US-08-484-223B-1
US-08-484-223B-231
US-08-485-551A-1
US-08-485-551A-1
US-08-485-551A-1
US-08-485-254A-1
US-08-485-254A-1
US-08-485-279B-498
US-09-082-279B-498
US-09-082-279B-631
US-09-082-279B-631
US-09-082-279B-631
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                                                                  Sequence 74, Appl
Sequence 738, App
Sequence 79, App
Sequence 638, App
Sequence 416, App
Sequence 799, App
Sequence 1, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 17, Appli
Sequence 17, Appli
Sequence 18, Appli
Sequence 19, Appli
Sequence 19, Appli
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ALIGNMENTS	US-09-082-279B-705 US-09-082-279B-1076 US-09-082-279B-1121 US-09-082-279B-1161 US-09-082-279B-1161 US-08-965-056-1 US-08-965-056-1 US-08-965-056-1 US-08-474-349A-1 US-08-474-349A-39 US-08-474-349A-400 US-09-315-304B-603 US-09-315-304B-603 US-09-315-304B-603
	Sequence 705, App Sequence 1076, App Sequence 1121, Ap Sequence 1161, Ap Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 399, App Sequence 400; Appli Sequence 410; Appli Sequence 410; Appli Sequence 47, Appli Sequence 47, Appli Sequence 48, Appli Sequence 497, Appli Sequence 603, Appli Sequ

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                                                                                                                                               ; MOLECULE TYPE: peptide US-08-073-028-74
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US-08-073-028-74
                                                                                                                                                                                               TELEFAX: (214) TELEFAX: (214) TELEX: 66141 PENNIE
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 74
SEQUENCE CHARACTERISTICS:
TENGTH: 35 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 74, Application US/08073028 Patent No. 5464933 GENERAL INFORMATION:
                                                                                          Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/073,028
FILING DATE: 07-JUN-1993
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, LAUTA A.
REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 787:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9990
TELEFAX: (212) 869-8864/9741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: SYNTHETIC PERTIFICATION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 1155 AV
CITY: New York
STATE: New York
COUNTRY: USA.
                                                                         Local Similarity
nes 35; Conserv
                                                                                                                                                                              TYPE: amino acid
TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 10036
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1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                  1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                       100.0%;
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ER: 7872-004-999
                                                                         0;
                                                                                       Score 188; DB 1;
Pred. No. 7.3e-17;
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US-08-554-616-74
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                                                                                                                                                       Sequence 74, Application US/08554616 Patent No. 6133418
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                            3-484-223B-234
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/484,223B
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              CORRESPONDENCE ADDRESS
                           TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV TITLE OF INVENTION: TRANSMISSION NUMBER OF SEQUENCES: 74
                                                                                   APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T.
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                        Match 100.0%; Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
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                                                                                                                                                                                                                                                                                                    1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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COTUZZÍ, LAURA A.
COTUZZÍ, LAURA A.
79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acid
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1155 Avenue of the Americas
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(212) 869-9741/8864
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Langlois, Alphonse J
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Pennie & Edmonds
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                                                                       US-09-082-279B-638
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; Sequence 638, Application US/09082279B
; Patent No. 6258782
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                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/082,279B COURENT FILING DATE: 1998-05-20 NUMBER OF SEQ ID NOS: 1515 SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 638 LENGTH: 35
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                                   Query Match
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 Best Local Similarity Matches 35; Conserv
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                      ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                          TYPE: PRT
                                                                                      OTHER INFORMATION: Core polypeptide
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ATTORNEY/AGENT INFORMATION:
NAME: Coruzzi, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
CURRENT APPLICATION DATA:
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APPLICATION NUMBER:
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New York
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Merutka, Gene
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100.0%; Score 188; DB 4; illarity 100.0%; Pred. No. 7.3e-17. Conservative 0; Mismatches 0
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(212) 869-8864/9741
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07-JUN-1993
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1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35

US-09-082-279B-799

GENERAL INFORMATION:

Barney, Shawn Guthrie, Kelly Merutka, Gene

Sequence 799, Application US/09082279B Patent No. 6258782

APPLICANT: Anwer, MOIMMEL
APPLICANT: Lambert, Dennis
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
TITLE OF TAVENTON: 18709/082,279B.

CURRENT APPLICATION NUMBER: US/09/082,279B.
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FRETERO FROM

FastSEQ for Windows Version 3.0

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1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35

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US-08-474-349A-416
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APPLICANT:
                                                                                                                                             COUNTRY: USA
ZIF: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION:
TITLE OF INVENTION:
               ATTORNEY/AGENT INFORMATION:
NAME: COruzzi, Laura A.
REGISTRATION NUMBER: 30,742
                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/474,349A
FILING DATE: 07-JUN-1995
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STATE: New York
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                                                                         CLASSIFICATION:
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5. 6333395
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Lambert, Dennis M.
Petteway, Stephen R.
Langlois, Alphonse J
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NUMBER:
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7872-024
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                                                                                                                                                                                                                                                              RESULT 8
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Best Local Similarity
Matches 35; Conserv
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                                                                                        APPLICANT:
                                    APPLICANT: Lambert, D.
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC TITLE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
                                                                                                                         APPLICANT: Barney, S. APPLICANT: Guthrie, K. APPLICANT: Merutka, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/315,304B
CURRENT FILING DATE: 1999-05-20
PRIOR APPLICATION NUMBER: 09/082,279
PRIOR ETLING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Lambert, D.
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC TITLE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
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CURRENT APPLICATION NUMBER: US/09/315,304B CURRENT FILING DATE: 1999-05-20
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Core polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
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LENGTH: 35 amino acids
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TELEFAX: 66141 PENNIE
TELEX: 66141 PENNIE
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mes 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 188; DB 4; 100.0%; Pred. No. 7.3e-17;
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Pred. No. 7.3e-17
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1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35

Query Match Best Local S

-09-082-279в-799

ORGANISM: Artificial Sequence FEATURE:

OTHER INFORMATION: Core polypeptide

SOFTWARE: Fa O ID NO 799 LENGTH: 35

TYPE: PRT

Matches

Local Similarity

100.0%; Score 188; DB 4; llarity 100.0%; Pred. No. 7.3e-17; Conservative 0; Mismatches 0;

Length 35;

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Gaps

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PRIOR APPLICATION NUMBER: 09/082,279

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                                                                                                                                                                 TELEFAX: (412, TELEFAX: (412, TELEX: 66141 PENNIL INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 36 amino acids ""PE: amino acid """PE: amino acid """"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
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                                                                  Matches
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                                                                                              Query Match
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Patent No. 546493
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NUMBER OF SEQ ID NOS: 1667
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-073-028-1
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/073,028
FILING DATE: 07-JUN-1993
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T.
                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF TITLE OF INVENTION: TRANSMISSION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: New York
                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 30 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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               1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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35; Conserv
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CORUZZI, Laura A.
78
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1155 Avenue of the Americas
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                                                               100.0%; llarity 100.0%; Conservative 0
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Pred. No. 7.3e-17;
                                                                                Score 188; DB 1;
Pred. No. 7.5e-17;
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RESULT 11
US-09-071-877-1
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                                                                                                                                                                     Sequence 1, Application US/09071877 Patent No. 6015881
                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                             Matches
APPLICANT: Kang, Myung-Chol
APPLICANT: Bray, Brian
APPLICANT: Lichty, Maynard
APPLICANT: Mader, Catherine
APPLICANT: Merutka, Gene
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS
FILE REFERENCE: 7872-050
CURRENT APPLICATION NUMBER: US/09/071,877
CURRENT FILING DATE: 1998-05-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/486,099
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/ACENT INFORMATION:
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
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LENGTH: 36 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET:
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Langlois, Alphonse J.
ENTION: COMPOSITIONS FOR INHIBITION OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Barney, Shawn O
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (212) 790-9090
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of the Americas
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                                                                                                                                                                                                                                                                                                                                                                               Length 36;
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SEQ ID NO 1

NUMBER OF SEQ ID NOS: 19

SOFTWARE: PatentIn Ver. 2.0

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US-08-360-107A-1
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                                                                                                              US-08-360-107A-1
                                                                    Query Match
Best Local
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Best Local 9
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REFERENCE/DOCKET NUMBER: 79
TELECOMMUNICATION INFORMATION
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
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STATE: New Yor
                                                                                                                                                   STRANDEDNESS
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les 35; Conser
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                         1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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36
                                                      l Similarity
35; Conserv
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                                                                                                                                                                amino acid
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Langlois, Alphonse J.
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Lambert, Dennis M.
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                                                      Conservative
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                                                                                                                                       unknown
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SYSTEM: PC-DOS/MS-DOS
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, Laura A.
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                                                                 100.0%;
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                                                   Score 188; DB 3;
Pred. No. 7.5e-17;
; Mismatches 0;
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APPLICANT:

APPLICANT:

Bolognesi, Dani P. Matthews, Thomas J.

APPLICANT:

APPLICANT:

Langlois,

Alphonse J.
COMPOSITIONS FOR INHIBITION

Petteway, Stephen R Barney, Shawn O. Lambert, Dennis M. Wild, Carl T.

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RESULT 14
US-08-484-223B-231
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US-08-484-223B-1
                                               Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                              Sequence 231, Application US/08484223B Patent No. 6020459
                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                Query Match
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                              GENERAL INFORMATION:
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APPLICANT: APPLICANT:
                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS: LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                           MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Petteway, Stephen R. APPLICANT: Langlois, Alphonse of TITLE OF INVENTION: COMPOSITION MEMBRANE FUTTLE OF INVENTION: TRANSMISSIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
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                                                                                                                                                                                                   Local Similarity es 35; Conserv
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                                                                                                                                                       1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                       2 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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10036-2711
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                                                                                                                                                                                                                                                                                                                      amino acid
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(212) 869-9741/8864
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Lambert, Dennis M.
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NO. 7.5e-17;
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US-08-919-597-1
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                                                                                                                                                                                                                                                                                                                                                                                                              equence 1, Application US/08919597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
TOPOLOGY: unl
MOLECULE TYPE:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: COTUZZI, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 78 TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
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                                                                                  COUNTRY: USA
ZIP: 10036-2711
                                                                                                                 CITY: New York
STATE: New Yorl
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Local Similarity 100.0%;
les 35; Conservative (
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10036-2711
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1155 Avenue of the Americas
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1155 Avenue of the Americas
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Lambert, Dennis M.
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                                                                                                                                                                                                                                                                                                                                  Wild, Carl T.
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                                                                                                                                                                                                   TRANSMISSION 273
                                                                                                                                                                                                                                  METHODS AND COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
                                                                                                                                                                                                                                                                   Alphonse J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              245
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; TOPOLOGY: unknown ; MOLECULE TYPE: peptide US-08-919-597-1
Вb
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                                                      Matches
                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Coruzzi, Laura ^
                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA: APPLICATION NUMBER: US,
                                                                                                                                                                                               SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                  TELLEFAX: (-
TELEFAX: 66141
                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 0 FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER:
             1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                                                 ENGTH:
2 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                     35;
                                                                                                                                                                    : 36 amino acids amino acid
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(212) 869-9741/8864
                                                      Conservative
                                                                                                                                                                                                                              PENNIE
                                                                    100.0%;
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                                                                    Score 188; DB 3;
Pred. No. 7.5e-17
                                                        Mismatches
                                                         0
                                                                                 Length 36;
                                                        Indels
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Search completed: May 16, 2003, 11:22:11 Job time: 9.90964 secs

Gaps

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                             Searched:
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                                                                                                                                                                                                                                                                                                                                                                      Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM protein - protein search, using sw model
                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                           l number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                          May 16, 2003, 11:20:00 ; Search time 15:3213 Seconds (without alignments) 220.333 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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188
                                                                                                                                                                                                        362588 seqs, 96450795 residues
                                                                                                                                                                                                                                                                                                                         TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                362588
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Database: Published\_Applications\_AA:\*

1: /cgn2\_6/ptodata/1/pubpaa/US08\_NEW\_PUB.pep:\*

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3: /cgn2\_6/ptodata/1/pubpaa/US06\_NEW\_PUB.pep:\*

4: /cgn2\_6/ptodata/1/pubpaa/US06\_PUBCOMB.pep:\*

5: /cgn2\_6/ptodata/1/pubpaa/US07\_NEW\_PUB.pep:\*

6: /cgn2\_6/ptodata/1/pubpaa/US07\_PUBCOMB.pep:\*

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12: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*

13: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*

14: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*

14: /cgn2\_6/ptodata/1/pubpaa/US10\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Query Match
268	268	268	256	254	232	221	177	56	46	37	36	36	36	36	36	36	36	36	Query . Match Length DB
10	10	10	9	9	9	9	9	10	10	9	10	10	10	10	10	9	9	9	
US-09-854-816-18	US-09-854-816-17	US-09-854-816-16	US-10-059-271-97	US-10-059-271-82	US-10-059-271-81	US-10-059-271-84	US-10-040-349B-2	US-09-779-451-4	US-09-779-451-41	US-09-848-616-176	US-09-854-816-108	US-09-854-816-1	US-09-834-628-1	US-09-779-451-5	us-09-796-202-10	US-09-493-346-1	US-10-116-797-1	US-09-874-475-16	ID
Sequence 18, Appl	17,	Sequence 16, Appl	Sequence 97, Appl	Sequence 82, Appl	81,		Sequence 2, Appli	Sequence 4, Appli	41	$\vdash$	Sequence 108, App	1,	Sequence 1, Appli	,	Sequence 10, Appl	Sequence 1, Appli	Sequence 1, Appli	Sequence 16, Appl	Description

### ALIGNMENTS

US-09-874-475-16 ; Sequence 16, Application US/09874475 ; Publication No. US20020182592A1

GENERAL INFORMATION:

RESULT 1

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                                                                                                                                                                                                                                      US-10-116-797-1
                                                                                                                                                                                                                                                               RESULT 2
                                                                                                                                                   Sequence 1, Application US/10116797 Publication No. US20030044411A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS FILE REFERENCE: 2793/65166 CURRENT APPLICATION NUMBER: US/09/874,475 CURRENT FILING DATE: 2001-06-04 NUMBER OF SEQ ID NOS: 16 SOFTWARE: PatentIn version 3.1 SEQ ID NO 16 LENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%; Score 188; DB 9; Best Local Similarity 100.0%; Pred. No. 6.2e-16; Matches 35; Conservative 0; Mismatches 0;
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING
FILE REFERENCE: 64672-A
CURRENT APPLICATION NUMBER: US/10/116,797
CURRENT FILING DATE: 2002-10-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Petropoulos, Christos J. APPLICANT: Parkin, Neil T. APPLICANT: Whitcomb, Jeanette APPLICANT: Huang, Wei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                          2 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                          1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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                                                                                HIV-1 INFECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 36;
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NUMBER OF SEQ ID NOS: 5 SOFTWARE: PatentIn version

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NAME/KEY: PEPTIDE
LOCATION: (1)..(36)
OTHER INFORMATION: US-09-796-202-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Description of Artificial Sequence: T20 peptide US-09-493-346-1
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US-09-493-346-1
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LENGTH:
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Rest Local Similarity 100.
35; Conservative
                                                                                                                                                                            SOFTWARE: PatentIn SEQ ID NO 10 LENGTH: 36
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Query Match
Best Local Similarity
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Best Local Similarity 100.0%;
Matches 35; Conservative 0
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                                                                                                                                                                                                                                                                                                                                                                               Sequence 10, Application US/09796202
Patent No. US20020068813A1
                                                                                                                                                                                                                                                      APPLICANT: Dragic, Tatjana APPLICANT: Olson, William APPLICANT: Olson, William TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION FILE REFERENCE: 2048/61010/JPW/SHS CURRENT APPLICATION NUMBER: US/09/796,202 CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1 TITLE OF INVENTION: Infection FILE REFERENCE: 61009 CURRENT APPLICATION NUMBER: US/09/493,346 CURRENT FILING DATE: 2000-01-28 NUMBER OF SEQ ID NOS: 5 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              equence 1, application US/09493346 blication No. US20030082185A1 ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                            TYPE: PRT
ORGANISM: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
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                                                                                                                              FEATURE:
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 Score 188; DB 10;
Pred. No. 6.2e-16;
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               Length 36;
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: Deptide
; OTHER INFORMATION: DP178
US-09-834-628-1
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US-09-779-451-5
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PRIOR ETILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
SOFTWARE: PatentIn version 3.0
SEQ ID NO 5
LENGTH: 36
TYPE: PRT
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Best Local Similarity
Matches 35; Conserv
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                                                                                                                                                                                                                                                                                                     SEQ ID NO 1
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                                                                                                               Query Match
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CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: YU, YEON GYU
APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PEPTIDES FOR INHIBITION OF HIV INFECTION
FILE REFERENCE: 05823.0198-00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/235,901 PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                            Local Similarity
nes 35; Conserv
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                                     TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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                                                                      100.0%;
ilarity 100.0%;
Conservative 0
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                                                                      Mismatches
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                                                                                                                                                                             Sequence 108, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
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TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
mes 35; Conserv
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FILING DATE: 15-May-2001
CLASSIFICATION: -CUnknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: Linear MOLECULE TYPE: DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: TORChia, PhD., Timoth:
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: PHOTELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                          TITLE OF INVENTION:
                                                                                                                                                              APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Constrained Helical Peptides and Methods of
NUMBER OF SEQUENCES: 113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 36 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 188; DB 10; llarity 100.0%; Pred. No. 6.2e-16; Conservative 0; Mismatches 0;
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                                                                              J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                      J. Kevin Judice
Robert S. McDowell
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Melissa A. Starovasnik
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                                        Constrained Helical Peptides and Methods of
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                   Making Same
                                                             Wells
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                                                                                                                                                                       SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 176
       Matches
                                     Query Match
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Best Local Similarity
     Best Local Similarity Matches 35; Conserv
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                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
                                                                                                                                                                                                                                                           APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
                                                                                                                                                                                                                                                                                                                 APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Sebbel, Peter
                                                                                                                         ORGANISM: Artificial Sequence
                                                                                                                                           TYPE: PRT
                                                                                       OTHER INFORMATION: DP178c peptide
                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 108:
                                                                                                                                                           ENGTH: 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94080
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                               Tissot, Alain
                                                                                                                                                                                                                                                                                                                             Bachmann, Martin
                                                                                                                                                                                                                                                                                                                                               Dunant, Nicolas
                                                                                                                                                                                                                                                                                                                                                                                                   Application US/09848616 o. US20030054010A1
       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Linear
                     100.0%;
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       0,
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   Score 188; DB 9;
Pred. No. 6.4e-16;
D; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 188; DB 10;
Pred. No. 6.2e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                     Length 37;
Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 36;
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     Gaps
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     0;
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1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35

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RESULT 12
US-10-040-349B-2
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                                                                                                                                                                                                                                                                                                                             ; LENGTH: 56
; TYPE: PRT
; ORGANISM: Human immunodeficiency virus type 1
US-09-779-451-4
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                     Sequence 2, Application US/10040349B Publication No. US20030082521A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 35; Conservative (
                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn version 3.0 SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4, Application US/09779451 Patent No. US20020094521A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 41, Application US/09779451 Patent No. US20020094521A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Wild, Carl T.
APPLICANT: Wild, Carl T.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EQ ID NO 41
LENGTH: 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: US 60/235,901
                                                                                                                                                               17 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 51
                                                                                                                                                                                                                                               Local Similarity
nes 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 46
                                                                                                                                                                                                       1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                             100.0%; Score 188; DB 10;
100.0%; Pred. No. 9.9e-16;
A. Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   us 60/235,901
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Pred. No. 8e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                     Length 56;
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US-10-059-271-84
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                                                                                                                                                                                                                                                                                                                                                                                        US-10-059-271-84
                                                                             Sequence 81, Application US/10059271 Publication No. US20030082208Al GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 84
LENGTH: 221
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn version 3.0
SEQ ID NO 2
LENGTH: 177
TYPE: PRT
ORGANISM: Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches · 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local Similarity
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                                   APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: DE 101
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: ALBRE-22
CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: REPKE, HEINRICH APPLICANT: BUDDE, ECKHARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS:
                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: Peptide
LOCATION: (1)..(177)
OTHER INFORMATION: polypeptide derived from gp41 LAI
                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                            132 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        105 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NICOLAUS, STEFAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chevalier, Michel
NICOLAUS, STEFAN
VENTION: PROTEIN I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/10059271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Krell, Tino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             El Habib,
                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002-01-3
                                                                                                                                                                                                                                                                                                        100.0%; Score 188; DB 9; 100.0%; Pred. No. 4.2e-15; ... Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
  HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 188; DB 9;
Pred. No. 3.3e-15;
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                                                                                                                                                                                                                                                                                                                                              Length 221;
                                                                                                                                                                                                                                                                                                          0;
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RESULT 15
US-10-059-271-82
; Sequence 82, Application US/10059271
; Publication No. US20030082208A1
Search completed: May 16, 2003, 12:10:23 Job time: 15.3213 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic ; OTHER INFORMATION: peptide US-10-059-271-81
                                                                                                                                   Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 81

LENGTH: 232

TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 82
LENGTH: 254
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%;
Best Local Similarity 100.0%;
Yatches 35; Conservative
                                                                                                                                                                                                                         FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
-10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: ALBRE-22
CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD.
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEO ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22 CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver. 2.1
                                                                       1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                   Conservative
                                                                                                                                                                   100.0%;
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                                                                                                                                               Score 188; DB 9;
Pred. No. 4.8e-15;
Mismatches 0;
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Pred. No. 4.4e-15;
Mismatches 0;
                                                                                                                                                                                     Length 254;
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Copyright

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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to ha score greater than or equal to the score of the result being and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                  Score
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seq length:
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Gapop 10.0 , Gapext 0.5
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    AAR64396
AAB152686
AAB152689
AAY89389
ABB00797
ABB02273
AAB502273
AAB577790
AAB54933
AAB54933
                                                                                                                                                                                                                                                                                                 SUMMARIES
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DP-178 homologue 6
T20/D178 peptide
HIV-1 isolate LAI
Core polypeptide f
Viral DP178/107-1i
Viral core polypep
DP178-like/DP107-1
Core polypeptide T
Anti-HIV peptide T
Anti-HIV peptide DP-178 homologue 6
                                                                                                                                                                                                                                Description
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	ore polypep	ore polypentide	re polypeptide	e polypeptide	re polypeptide	re polypeptide	ore polypeptide	IV-1 isolate LA	20/DP178 peptid	20/DP178	0/DP178 peptide	V-1 LAI gp	nthetic pe	NO. 1 from	Q ID NO.	V-1 derived pe	178 corr	-178 der	ti-HIV peptide	e polypept	re polypeptide	P178-like/DP107-	P178-like/bp107-	iral core polype	iral core poly	iral DP178/107-1	iral DP178/107-1	ore polypeptide	V-1 isolate L	eptid					

### ALIGNMENTS

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RESULT 1
AAR64396
antiviral activity; DP-178; DP-107; diagnostic; human immunodeficiency virus; transmembrane profalpha helix; leucine zipper; DP-185.
        07-JUN-1993;
                           07-JUN-1994;
                                                                     WO9428920-A
                                                                                                              Modified-site
                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                 DP-178 homologue 65 derived from HIV-1 has antiviral activity.
                                                                                                                                                                                                                                                                      25-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                           AAR64396;
                                                                                                                                                                                                                                                                                                               AAR64396 standard; Peptide;
                                                22-DEC-1994
                                                                                                                                                       Modified-site
       93US-0073028
                           94WO-US05739
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/note=
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                                                                                                                                                                Location/Qualifiers
                                                                                                   "optionally has
                                                                                                                     "optionally has an amino, acetyl, 9-fluorenylmethoxy-carbonyl, hydrophobic or macromolecular carrier gp. attached"
                                                                                        "optionally has a carboxyl, amido, hydrophobic or macromolecular carrier gp. attached"
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                                                                                                                                                                                                                                                                                                                AA.
                                                                                                                                                                                                                  protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          truncated at the amino terminus. DP-178 corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 538-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein protein interactions, and possess anti-viral activity. The peptide derivs, were identified by a computer assisted peptide sequence search. The peptides inhibit transmission to
The present sequence is a helical segment of the ect
                                      Claim 12;
                                                            Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                 WPI;
                                                                                                                                                                                           05-MAY-1999;
                                                                                                                                                                                                                                                                                             Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                       T20/DP178
                                                                                                                                                                                                                                                                                                                                                                                                                         AAB52686
                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB52686 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      specific diagnostic tools
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR64365-97 are peptide derivs. of DP-178 (AAR64364) which have been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIV transmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Computer search generated synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1995-036105/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Barney SO,
Petteway SR,
                                                                                                                                                                                                                   05-MAY-2000;
                                                                                                                                                                                                                                             09-NOV-2000
                                                                                                                                                                                                                                                                     WO200066622-A1
                                                                                                                                                                                                                                                                                                                                 Antiinflammatory; T20/DP178; formyl peptide receptor famil
                                                                                                                                                                                                                                                                                                                                                                                                23-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  uninfected cells, and can also be used as type and/or subtype
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                                                                                                                                                                 (USSH ) US DEPT HEALTH & HUMAN SERVICES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                      Page 25; 148pp; English
                                                                                                                                                                                                                                                                                                                                                                      peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34 AA;
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, Wild CT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                   2000WO-US12371
                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                          99US-0132686
                                                                                                                                                                                                                                                                                                                                                                       fragment #64.
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  the ectodomain
                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide;
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                                                                                                                                                                                                                                                                                                                                  P178; gp41 ectodomain; HIV-1 fusion; family; FPR; inflammatory response
                                                                                                                                          Su
             peptide
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                                                                                                                                                                                                                                                                                             type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 183; DB 16;
Pred. No. 1.1e-15;
; Mismatches 0;
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                                                                                                                                         Gong W,
fragment of T20/DP178. of HIV-1 protein gp41.
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                                                                                                                                          Murphy
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  T20/DP178
T20/DP178
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                                                                                                                                                                                                                                                                                                                                  up-regulation;
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Best Local
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Sequences AAB14604-B14606 and AAB14607-B14670 represent peptides derive from the C-helical domain of the 9941 envelope glycoprotein from HIV-1 group M, subtype B, isolate LAI. The invention relates to raising a neutralising antibody response to a broad spectrum of HIV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or mimics highly conserved portions of 9941 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or mimic the coiled coil solution structure of the N-helical domain (the heptad repeat region), or can correspond or mimic the C-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), or the 9941 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three 9941 proteins. The peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/Dp178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gp41 transmembrane-proximal amphipathic alpha-helical segment; core 6-helix bundle; viral entry inhibition; immunogenic; antibody; humoral response; broad spectrum vaccine; anti-HIV; envelope glycoprotein; prophylaxis; therapy; group M; subtype isolate LAI.
                                                                                                                                                                                                                                                Disclosure; Page 33;
                                                                                                                                                                                                                                                                               Raising neutralizing antibody response to human comprises administering a polypeptide capable of coiled-coil solution structure -
                                                                                                                                                                                                                                                                                                                                                                                      Wild CT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-JAN-1999;
07-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV-1 isolate LAI gp41 C-helical domain peptide P-18, fragment #63
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                                                                                                                                                                                                                                                                                                                                                      WPI;
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34; Conser
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                                                                                                                                                                                                                                               97pp; English.
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Pred. No. 1.1e-15;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                    of forming a stable
                                                                                                                                                                                                                                                                                                                    immunodeficiency virus,
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                                                                                            sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can
                                           prevention of
                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 35; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                A new hybrid polypeptide with enhanced comprises enhancer sequence -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-136792/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Barney S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TRIM-) TRIMERIS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    colony stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; vanti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Core polypeptide fragment T No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY89389;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY89389 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          comprising polyclonal or monoclonal antibodies can be administered to reduce HIV infection of uninfected cells. Antibodies raised against entry-relevant gp41 structures may also be used therapeutically and as tools to further elucidate the mechanism of HIV cell entry.
                                                                   function as a pharmacoligically useful peptide for the treatment or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                             relates to hybrid polypeptides comprising enhancer peptide ed to core polypeptides. The enhancer polypeptides are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA;
a disease. in a mowth factor,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor; hormone; angiogenic factor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Merutka G,
                                           The core polypeptides are bioactive peptides
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Pred. No. 1.1e-15;
               cytokine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anwer MK,
                                                                                                                                                                                                                                                                                                                                                                                                                            pharmacokinetic properties
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                                     The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required for normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV; virucide; heptad repeat region; transmembrane protein; gp41; HR1; HR2;
                                                                                                                                                                                                              Disclosure; Page 49; 587pp; English
                                                                                                                                                                                                                                                           Heptad repeat region peptide analogs useful for fusion, useful for treating HIV and Respiratory
                                                                                                                                                                                                                                                                                                                                          Antczak JB,
                                                                                                                                                                                                                                                                                                                                                                         (TRIM-) TRIMERIS INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           interferon, colony stimulating factor, hormone actor. The peptides of the invention can be used
                                                                                                                                                                                                                                                                                                                                          Delmedico MK,
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.1e-15;
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                                                                                                                                                                                                                                                           inhibiting virus/cells
Syncytial Virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-FEB-2001; 2001WO-US03988
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV; virucide; heptad repeat region; transmembrane protein; gp41; HR1; HR2;
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AAU13343;
                          AAU13343 standard; Peptide; 34 AA
                                                                                                                                                                                                                                                     normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Heptad repeat region peptide analogs useful for inhibiting virus/cells fusion, useful for treating HIV and Respiratory Syncytial Virus
                                                                                                                                                                                                                                        the specification.
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Pred. No. 1
                                                                                                                                                                    Score 183; DB 22; Pred. No. 1.1e-15;
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                             corresponds to amino acids 558-595 of gp41 from HTV-ILAI. The invention also relates to a method of identifying compounds that inhibit the formation of or disrupts a DP107/DP178 complex. The method comprises detecting the formation of a DP107/DP178 complex, both in the presence or absence of a test compound, in a reaction mixture containing DP107 and DP178 peptides. The method is useful for identifying compounds, including small molecule compounds, which may themselves exhibit antifusogenic, antiviral or intracellular modulatory activity. The DP178-like/DP107-like peptides are useful to inhibit human and non-human retroviral, particularly HTV, transmission to uninfected cells. The present sequence represents one of the DP178-like/DP107-like peptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antiviral or intracellular modulatory activity, by detecting the formation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to peptides which exhibit anti-retroviral activity. The peptides of the invention (AAU12559-AAU14009) comprise DP178-like and DP107-like peptides. The DP178 peptide corresponds to amino acids 639-673 of the transmembrane protein gp41 from human immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 68; 259pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-442157/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jeffs P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUL-2000; 2000WO-US35727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antifusogenic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anti-retroviral; DP178-like; DP107-like; transmembrane protein gp41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DP178-like/DP107-like peptide T-924.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-NOV-2001 (first entry)
                                                               AAB77790;
                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modified-site
                                                                                                        AAB77790 standard;
                                                                                                                                                                                                                                  1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                              SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunodeficiency virus 1 isolate LAI.
                                                                                                                                                                                                                                                                                                 34;
                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lackey JW,
                                                                                                                                                                                                                                                                                                                                                                                  34 AA;
                                                                                                                                                                                                                                                                                             100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antiviral; HIV transmission; mutant; mutein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "C-terminal amide"
                                                                                                        Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Erickson
                                                                                                                                                                                                                                                                                                 0;
                                                                                                          34
                                                                                                                                                                                                                                                                                             Score 183; Db 22,
Pred. No. 1.1e-15;
Pred. No. 1.1e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lawless
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Merutka
                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                             34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ö
                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                 Gaps
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19-APR-2001

(first entry)

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Core polypeptide T924.

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AAB54933
ID AABS
XX AC AABS
XX
AC AABS
XX
AC AABS
XX
AC AABS
XX
LONG
KW LONG
KW ANT
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                                                                                                                                                                                                                                                            QY
                                                                                                                                                                                 RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence is a core polypeptide which may be linked to CC an enhancer peptide to form a novel hybrid polypeptide. The hybrid CC polypeptide exhibits enhanced pharmacokinetic properties relative to those exhibited by the core polypeptide when introduced into a living system. It is used to increase the in vitro or ex vivo half-life of CC the core polypeptide. The hybrid and core polypeptides can be used for coiled-coil peptide interactions. Other uses include preventing, CC coiled-coil peptide interactions. Other uses include preventing, CC treating and/or diagnosing disorders involving fusion events (e.g. cc intracellular processes involving coiled-coil peptides (e.g. bacterial cifections) and viral infections that involve cell-cell and/or cc immunodeficiency virus, respiratory syncytial virus, Epstein-Barr cc virus, hepatitis B virus, Mason-Pfizer virus and polio virus). The enhancer peptide sequence increases the half-life and reduces the clearance rate of therapeutic peptides, which increases their effects.

The enhancer increases the sensitivity of the diagnostic procedure in addition, this increases the sensitivity of the diagnostic procedure
                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                               Query Match
Long lasting fusion peptide antifusogenic; mobile blood
                                                Anti-HIV peptide DP178 amino truncation peptide #31.
                                                                                05-MAR-2001
                                                                                                                 AAB54933;
                                                                                                                                                  AAB54933 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 48; 151pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New hybrid polypeptide, e.g. viral infections, c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-147136/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Barney S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200103723-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bacterial infection; viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                coiled-coil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Core polypeptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                   ш
                                                                                                                                                                                                                                                                1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
                                                                                                                                                                                                                               SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                               they
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide; enhancer; antiviral; anti-HIV;
hepatotropic; antiinflammatory; hybrid
il peptide interaction; fusion-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Guthrie KI,
                                                                                                                                                                                                                                                                                               100.0%;
llarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US18772
                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                  AA;
                                                                                                                                                                                                                                                                                                                                                                                                 are used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0350641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , useful for preventing, treating and comprises an enhancer peptide linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Merutka G,
inhibitor;
component;
                                                                                                                                                  34
                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                               Score 183; DB 22;
Pred. No. 1.1e-15;
; Mismatches 0;
                                                                                                                                                  A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anwer MK, Lambert DM;
 viral infection;
measles virus; M
                                                                                                                                                                                                                                 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hybrid polypeptide;
blated disorder;
                                                                                                                                                                                                                                                                                                                              Length 34;
                                                                                                                                                                                                                                                                                                Indels
n; antiviral; MeV; SIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosing
to a core
                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                               Gaps
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RESULT 10
AAR64397
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           groups which is reactive with amino groups, hydroxyl groups, or thiol CC groups on blood components to form stable covalent bonds. (I) has Canti-viral and anti-fusogenic activities. (I) inhibits viral infection CC of cells by inhibiting cell-cell fusion or free virus infection or to C reduce the level of membrane fusion events between two or more entitles, CC e.g., virus-cell or cell-cell, relative to the level of membrane fusion that occurs in the absence of the peptide. (I) is useful in the CC treatment of patients who are suffering from viral infection, e.g. HIV, CC RSV, HPIV, MeV, and SIV. (I) may be administered prophylactically to CC previously uninfected individuals. This is useful in cases where an CC individual has been subjected to a high risk of exposure to a virus. CC By bonding of long-lived components of the blood, such as immunoglobin, CC serum albumin, red blood cells and platelets the activity is extended CC reduced susceptibility to peptidase or protease degradation. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         minimises the need for more frequent, or
of the peptides. AAB54784 to AAB55431 rep
exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A modified peptide and a reactive group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds useful for treatment of viral infections, e.g.
                          alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes a modified anti-viral peptide (I) comprising a peptide that exhibits anti-viral activity and a reactive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  simian immunodeficiency virus; human parainfluenza virus; HPIV; RSV; human respiratory syncytial virus; human immunodeficiency virus; HIV
                                                       human
                                                                              antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI;
                                                                                                                                               DP-178 homologue 66
                                                                                                                                                                                                                 25-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 135;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-007496/01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-MAY-1999;
10-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CONJ-) CONJUCHEM INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
                          helix;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunodeficiency virus
                   immunodeficiency virus; transmembrane protein;
helix; leucine zipper; DP-185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                      standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dufresne RP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US13651
                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
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99US-0153406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ed for more frequent, or even continual, AAB54784 to AAB55431 represent peptides
                                                                                                                                                   derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211pp; English.
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                                                                                                                                                                                                                                                                                                                                          ω
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                               from HIV-1 has antiviral activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 183; DB 22;
Pred. No. 1.1e-15;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                          A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Robitaille M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Milner PG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    administration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Φ.
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RESULT 11
AAB52687
PX RX PF
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                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                               AAR64365-97 are peptide derivs. of DP-178 (AAR64364) which have been truncated at the amino terminus. DP-178 corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein protein interactions, and possess anti-viral activity. The peptide derivs. were identified by a computer assisted peptide sequence search. The peptides inhibit transmission to uninfected cells, and can also be used as type and/or subtype
09-NOV-2000
                        WO200066622-A1
                                                Human immunodeficiency
                                                                                 Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response
                                                                                                                         T20/DP178 peptide
                                                                                                                                                   23-FEB-2001
                                                                                                                                                                          AAB52687;
                                                                                                                                                                                                 AAB52687 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Computer search generated synthetic peptides - are inhibitors \ensuremath{\mathrm{HIV}} transmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Barney SO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYDU-) UNIV DUKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-DEC-1994
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                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                     SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1995-036105/05
                                                                                                                                                                                                                                                               SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                             1 Similarity
34; Conserv
                                                                                                                                                                                                                                                                                                                                                                                     diagnostic tools
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 133; 182pp; English
                                                                                                                                                                                                                                                                                                                                                                35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bolognesi DP, Wild CT;
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93US-0073028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94WO-US05739
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note-
                                                                                                                          fragment #65.
                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "optionally has an amino; acetyl, 9-fluorenylmethoxy-carbonyl, hydrophobic macromolecular carrier gp. attached"
                                                virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "optionally has a
or macromolecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lambert DM,
                                                                                                                                                                                                   35
                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                            Score 183; DB 16;
Pred. No. 1.2e-15;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matthews TJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          carboxyl,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gp.
                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                               Indels
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attached"
                                                                                                                                                                                                                                                                                                                                       35;
                                                                                    up-regulation;
                                                                                                                                                                                                                                                                                                               0;
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RESULT 12
AAB14670
ID AAB14
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PR PR PA PA XX PA XX PA XX XX XX
                                                                                                                                                             XXX OXX XXX XXX
                                                                                                                                                                                                                                                                                                                            SXBXB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 34; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                                                  gp41 transmembrane-proximal amphipathic alpha-helical segment;
core 6-helix bundle; viral entry inhibition; immunogenic;
antibody; humoral response; broad spectrum vaccine; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                            HIV-1; gp41 C-helical domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim
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           WPI; 2000-465959/40
                                      Wild CT, . Weiss CD;
                                                                                                      08-JAN-1999;
07-JAN-2000;
                                                                                                                                               10-JAN-2000; 2000WO-US00456
                                                                                                                                                                                                     WO200040616-A1
                                                                                                                                                                                                                               Human immunodeficiency virus type
                                                                                                                                                                                                                                                                      envelope glycoprotein;
                                                                                                                                                                                                                                                                                                                                                   HIV-1 isolate LAI gp41 C-helical domain peptide P-18, fragment #64
                                                                                                                                                                                                                                                                                                                                                                                 24 - NOV - 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB14670 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (USSH · ) US DEPT HEALTH & HUMAN
                                                                                                                                                                           13-JUL-2000
                                                               (WILD/) WILD C T.
(WEIS/) WEISS C D.
                                                                                                                                                                                                                                                          isolate
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oppenheim JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ω
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                                                                                                       99US-0115404.
2000US-0480336.
                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                              prophylaxis; therapy; group M; subtype B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Su
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                        35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 183; I
Pred. No. 1.2
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                       ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gong W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ဌဌ
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.2e-15;
s 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murphy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          process of viral entry into host cells. Such peptides can correspond to or mimic the colled coil solution structure of the N-helical domain (the heptad repeat region), or can correspond or mimic the C-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), or the gp41 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three gp41 proteins. The peptides can be administered either singly or as a combination (particularly a combination of N-helical and C-helical peptides), and can be multimerised. For example, N- and C-helical domain peptides can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          alternately linked together to form a peptide which mimics the core 6-helix bundle. Administration of the peptide (s) generates a humoral response, with the production of antibodies against gp41 structures involved in viral entry. As these portions of gp41 are well conserved, such antibodies may be effective against a broad range of HIV strains and isolates. The peptide compositions may be administered as a prophylactic or therapeutic vaccine to generate antibodies which reduce or inhibit the ability of HIV to infect uninfected cells. A composition comprising polyclonal or monoclonal antibodies can be administered to reduce HIV infection of uninfected cells. Antibodies raised against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               administration of a peptide which corresponds to or mimics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV-1 group M, subtype B, isolate LAI. The invention relates to ra a neutralising antibody response to a broad spectrum of HIV (human immunodeficiency virus) strains and isolates, comprising the
                                                                                                     20-MAY-1998;
                                                                                                                                                                                20-MAY-1999;
                                                                                                                                                                                                                                                          25-NOV-1999
                                                                                                                                                                                                                                                                                                                                    W09959615-A1
                                                                                                                                                                                                                                                                                                                                                                                                              Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             colony stimulating factor; hormone; angiogenic factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Core polypeptide fragment T No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY89388 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry-relevant gp41 structures may also be used tools to further elucidate the mechanism of HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequences AAB14604-B14606 and AAB14607-B14670 represent peptides derive from the C-helical domain of the gp41 envelope glycoprotein from HIV-1 group M, subtype B, isolate LAI. The invention relates to raising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 34; 97pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Raising neutralizing antibody response to human immunodeficiency virus, comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
                               (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                         98US-0082279
                                                                                                                                                                                99WO-US11219
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Pred. No. 1.2e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         923.
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35;
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Best Local S
Matches 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences ANY8651-Y90055 represent core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core
WPI; 2001-514829/56
                                                                                                                                  07-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Viral DP178/107-like region peptide T715.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          comprises enhancer sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A new hybrid polypeptide with enhanced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Barney S,
                                 Antczak JB,
                                                                                                  29-FEB-2000;
                                                                                                                                                                    07-SEP-2001
                                                                                                                                                                                                     WO200164013-A2
                                                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                                                                    Modified-site
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                                                               (TRIM-) TRIMERIS INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hybrid polypeptides.
                                                                                                                                                                                                                                                                                                                                                                                     heptad repeat region; transmembrane protein; gp41; HR1; HR2
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                                 Delmedico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 35; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                 2000US-0515965
                                                                                                                                  2001WO-US03988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       relates to hybrid
                                                                                                                                                                                                                                                   /note= "N-terminal is substituted by 35
                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                               MK,
                                                                                                                                                                                                                                       "C-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Merutka G,
                             Erickson JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 183; DB 21;
Pred. No. 1.2e-15;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptides comprising enhancer peptide
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                               Lambert DM,
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RESULT 15
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The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region
                                                                  Disclosure; Page 49; 587pp; English
                                                                                                                  Heptad repeat region peptide analogs useful for fusion, useful for treating HIV and Respiratory
                                                                                                                                                                     WPI; 2001-514829/56
                                                                                                                                                                                                      Antczak JB,
                                                                                                                                                                                                                                     (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                    29-FEB-2000;
                                                                                                                                                                                                                                                                                                     07-FEB-2001; 2001WO-US03988
                                                                                                                                                                                                                                                                                                                                        07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                       WO200164013-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Viridiae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV; virucide; heptad repeat region; transmembrane protein; gp41; HR1; HR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viral DP178/107-like region peptide T923.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABB00796;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Heptad repeat region peptide analogs useful for inhibiting virus/cells fusion, useful for treating HIV and Respiratory Syncytial Virus infection -
                                                                                                    intection
                                                                                                                                                                                                                                                                                                                                                                                                                      Modified-site
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Similarity 100.0%; Pred. No. 1.2e-15;
34; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      heptad repeat region; transmembrane protein; gp41; HR1; HR2;
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                                                                                                                                                                                                                                                                    2000US-0515965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                         /note= "C-terminal amide"
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                                                                                                                                                                                                    JВ,
                                                                                                                                                                                                      Lambert
                                                                                                                  inhibiting virus/cells
Syncytial Virus
                                                                                                                                                                                                      DM,
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В
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                                                                  Query Match
Best Local S
Matches 34
                                                                                                                                                                                  HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
                                                                                                                                       Sequence
                                                                                                                                                                       the specification
                                                                  Local Similarity
nes 34; Conserv
                1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
2 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                       35
                                                                100.0%; ilarity 100.0%; Conservative (
                                                                                                                                       AA;
                                                                    0;
                                                                  Score 183; DB 22;
Pred. No. 1.2e-15;
); Mismatches 0;
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                                                                                                      35;
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                                                                  Gaps
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Search completed: May 16, 2003, 11:12:03 Job time: 30.6546 secs

0,



GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: May 16, 2003, 11:04:54; Search time 11.4699 Seconds (without alignments) 284.970 Million cell updates/sec

Title:
Perfect score:
Sequence:

US-09-623-533A-118 183 1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 283224 seqs, 96134422 residues

al number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR\_73:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	0	5	•	u	2	<u>,,</u>	NO.	Result	
156	158	158	160	161	162	162	162	164	164	165	165	165	165	165	166	167	167	170	171	171	174	174	174	174	183	183	183	183	score		
									•	90.2		•			•		•	92.9		93.4	•	95.1	95.1	95.1	100.0	100.0	100.0	100.0	Match		40
729	852	357	846	357	855	853	843	855	357	859	852	358	358	. 358	445	847	847	357	358	357	861	856	856	443	861	856	854	851	Length		
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VCLJKX	VCLJBR	S21992	VCLJND	S22006	VCLJZR	S54384	H44001	VCLJA2	S22004	VCLJMN	T12016	S70417	S22000	S22002	A41621	S13289	T09448	S21996	S21998	S21994	VCLJSC	VCLJ3W	VCLJVL	C41621	VCLJLV	VCLJH3	S13288	S33985	ID		
env polyprotein pr	protein -				env polyprotein pr	0		protein p	⊃	protein p	glycopro	protein		protein	env polyprotein M	ein - hum	glycopro		protein	Þ					'n	polyprotei	env protein - huma	polyprotein	Description		

RESULT 3 VCLJH3

## ALIGNMENTS

OY 1 SLIHSLIEESONQQEKNEQELLELDKWASLWNWF 34 	Query Match 100.0%; Score 183; DB 2; Length 854; Best Local Similarity 100.0%; Pred. No. 4.1e-14; Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	RESULT 2 \$13.288 env protein - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Cate: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997 C;Accession: \$13288 R;O'Darien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, A.; Idler, K.; Zack, Nature 348, 69-73, 1990 A;Title: HIV-1 tropism for mononuclear phagocytes can be determined by regions of gpl A;Reference number: \$13288 A;Reference number: \$13288 A;Recession: \$13288 A;Recession: \$13288 A;Residues: 1-854 <obr> C;Superfamily: type E retrovirus env polyprotein</obr>	Qy 1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34 	Query Match 100.0%; Score 183; DB 2; Length 851; Best Local Similarity 100.0%; Pred. No. 4.1e-14; Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	submitted to the EMBL Data Library, November 1991 A;Reference number: S33979 A;Reference number: S33985 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-851 <car> A;Cross-references: EMBL:Z11530; NID:g60192: PIDN:CAA77628.1; PID:g60199 C;Superfamily: type E retrovirus env polyprotein</car>	RESULT 1  \$33985  env polyprotein - human immunodeficiency virus type 1  C;Species: human immunodeficiency virus type 1, HIV-1  C;Date: 19 Mar-1997 #sequence_revision 19 Mar-1997 #text_change 26-Aug-1999  C;Accession: \$33985
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polyprotein precursor - human immunodeficiency virus

type 1 (isolate HTLV-III,

вн10)

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C;Species: human immunodeficiency virus type 1, HIV-1
A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                                                                                                                                                                                                                     R; Wain-Hobson,
Cell 40, 9-17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nature 313,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    env polyprotein precursor - human in N; Alternate names: coat polyprotein
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A; Reference number: A90866; 1
A: Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C; Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Species: human immunodeficiency virus type
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A; Residues: 1-856 < RAT>
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                                                                                                     В
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env polypro
N; Alternate
                                 C41621
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Best Local :
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Best Local
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esidues: 1-861 <WAI>
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12-856/Product: transmembrane glycoprotein #status predicted <TMM>
8,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,406
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eywords: AIDS; capsid protein; coat protein; glycop
eywords: signal sequence #status predicted <SIG>
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13, 277-284, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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   coat
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                 human
 polyprotein
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                 immunodeficiency
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Pred. No. 4.1e-14;
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Pred. No. 4.1e-14;
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Wong-Staal,
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C; Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Genetics:
 N;Contains: coat protein gp120; coat protein gp41
C;Species: human immunodeficiency virus type 1, H
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-198
                                                                     RESULT
VCLJ3W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N; Alternate
                                                                                                                                                                       οy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule
                                                   env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local·S
Matches 32
                                                                                                                                                                                                                          Query Match
Best Local :
                                                                                                                                          640
                                                                                                                                        SLIHSLIEESQNQQEKNEQELLELDKWANLWNW
```

precursor

human immunodeficiency virus

type

1 (isolate WMJ1)

672

ype 1, HIV-1 -Sep-1988 #to

#text\_change

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C; Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; F;1-251/Product: coat protein gp120 (fragment) #status predicted <GP1>F;252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>F;424-443/Pomain: transmembrane #status predicted <TMN>F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Note: host Homo sa
C; Date: 11-Feb-1993
C; Accession: C41621
                                                                                                                                  A;Gene: env
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein: glycoprotein; immunodeficiency: polyp
C;Keywords: AIDS; capsid protein; coat protein: glycoprotein; immunodeficiency: polyp
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-511/Product: exterior membrane glycoprotein #status predicted <EXT>
F;512-856/Product: transmembrane glycoprotein #status predicted <TWM>
F;813-814,136,140,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,
F;611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. A; Title: Evolution of human in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Burger, H.; Weis
Proc. Natl. Acad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N;Contains: amino end of coat protein gp41; carboxyl end C;Species: human immunodeficiency virus type 1, HIV-1
                                                                                                                                                                                                                                                                                                                     A; Residues: 1-856 <MUE>
A; Cross-references: GB: K02083; NID: g555008; C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Accession: A039
R; Muesing, M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:M77230; NID:g328631; PIDN:AAB03792.1; A;Note: this virus was isolated from the mother's sexual par
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-443 <BUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number: A; Accession: C41621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Species: human immunodeficiency virus type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         env polyprotein precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A93355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 313, 450-458,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Title: Nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        380 SLIYNLIEESQNQQEKNEQELLELDKWASLWNWF 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity es 32; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               host Homo sapiens (man)
11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change
SLIHSLIEESQNQQEKNEQELLELDKWASLWNW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
                                                                                                                                                                                                                                                                                                                                                                  type: DNA: 1-856 <MG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   names:
                                                                                                                                                                                                                                                                                                                                                                                                             A03974
                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              type E retrovirus env polyprotein;
oS; capsid protein; coat protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                    structure and expression of the 93355; MUID:85111157; PMID:298210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D.H.; Cabradilla, C.D.;
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94.1%;
                                                                    95.1%;
97.0%;
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Pred. No. 2.
                                                                    Score 174;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunodeficiency virus
                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                         PMID: 2982104
    33
                                                                                                                                                                                                                                                                                                                                               PIDN: AAB59873.1;
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.4e-13;
                                                                                              DВ
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1991
                                                                      9e-13;
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                                                 0,
                                                                                       Length 856;
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                                                 Indels
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                                                                                                                                                                                                                                                                                                                                               PID: g328559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lasky, L.A.; Capon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-Jul-1999
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C;Superfamily: type E retrovirus env polyprotein (C;Keywords: coat protein; glycoprotein; polyprotein; transmembrane F;1-29/Domain: signal sequence #status predicted <SIG> F;30-501/Product: coat protein gp120 #status predicted <GP1> F;502-847/Product: coat protein gp41 #status predicted <GP2> F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,354,36
                                                                                                                  C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
C;Accession: S21994; S70421
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W.
                                                                                                                                                                              C:Species: human immuno
A; Variety: isolate 27B
                                                                                                                                                                                                                                                                                                                                                                  QΥ
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VCLJSC
A; Molecule type: DNA
A; Residues: 1-357 <S
                                                                              submitted to the EMBL Data Library, A; Description: Distinct populations
                                                                                                                                                                                                   envelope protein gp120/gp41 - human immunodeficiency virus type C; Species: human immunodeficiency virus type 1, HIV-1
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A; Gene: env
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Accession: A24774 R; Starcich, B.R.; H
                                          A; Accession: S21994
                                                         A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 16-Feb-199
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A; Residues: 1-856 <STA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: A24774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;Superfamily: type E retrovirus env polyprotein; Reywords: capsid protein; coat protein; qlycop
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                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Molecule type: DNA Residues: 1-861 <GUR>
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1-29/Domain: signal sequence #status predicted <SIG>
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7,129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,
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                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                         s21990
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                                                                                                                                                                                                                                                                                                                                                                                                                              95.1%;
94.1%;
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94.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of two new United States HIV-1 isolates MUID:88219542; PMID:3369091
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2;
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 174; DB 1 Pred. No. 5e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           virus
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                                                                          HIV-1 in blood and cerebrospinal fluid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Aldovini, A.; Collalti,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S.; Wolf, H.;
                                                                                                                                                                                                                                                                                                                                                                                                           0;
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C:Species: human immunodeficiency virus type 1, A; Variety: isolate 28 C:Date: 20-Feb-1995 #sequence_revision 20-Feb-190; Accession: S21998; S70425 R; Steuler, H.; Storch-Hagenlocher, B.; Wildemann
                                    A; Molecule type: DNA
A; Residues: 1-357 <ST2>
A; Cross-references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1;
                                                                                                          A; Reference number: S;
A; Accession: S70422
A; Status: preliminary
                                                                                                                                                     AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency
A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                        envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 27L) C:Species: human immunodeficiency virus type 1, HIV-1 C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: DNA
A;Residues: 1-222,'X',224-358 <STE2>
A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; PID:g60183
C;Superfamily: type E retrovirus env polyprotein
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A; Title: Distinct populations of human imm
A; Reference number: $70417; MUID:92144209;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Notecute type: DNA
A; Residues: 1-140 'X', 142-312, 'X', 314-357 <STE2>
A: Residues: 1-140 'X', 142-312, 'X', 314-357 <STE2>
A: Cross-references: EMBL: X61355; NID: g60179
A: Cross-references: EMBL: X61355; NID: g60179
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A;Experimental source: patient 27L A;Note: submitted to the EMBL Data Library, July 1991
                                                                                                                                                                                                                    R;Steuler, H.;
                                                                                                                                                                                                                                             C; Accession: S70422; S21996
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A;Molecule type: DNA
A;Residues: 1-358 <STE1>
A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1;
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Retroviruses 8, 53-59, 1992
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Retroviruses 8, 53-59, 1992
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91.2%;
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Pred. No. 4
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Pred. No. 4.3e-13;
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,4.3e-13;
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                                             PID: g1067129
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env polyprotein M - human immunodeficiency virus type 1 (fragment) N;Alternate names: coat polyprotein N;Contains: amino end of coat protein gp41; carboxyl end of coat protein gp120 C;Species: human immunodeficiency virus type 1, HIV-1
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C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change
C;Accession: S13289
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A;Note: host Homo saplens (man)
C;Date: 11-Feb-1993 *sequence_revision 31-Dec-1993 *text_change 26-Aug-1999
C;Accession: A41621
R;Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguyen, P.N.; Gibbs, R.A
                                                                                                                                      RESULT
A41621
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C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-Nov-1999
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R; Pang, S.; Vinters, H.V.;
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A; Residues: 1-847 <PAN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;O'Brien, W.A.; Koyanagi, Y.; Namazie,
Nature 348, 69-73, 1990
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Residues: 1-847 <OBR>
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91.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                               mononuclear phagocytes can be; MUID:91043044; PMID:2172833
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Pred.
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Pred. No. 3
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3.4e-12;
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1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF SLIYTLIEESQNQQEKNEQDLLELDKWDSLWNWF

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C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; pol F;1-253/Product: coat protein gp120 (fragment) #status predicted <GP1> F;254-445/Product: coat protein gp41 (fragment) #status predicted <GP2> F;254-445/Product: coat protein gp41 (fragment) #status predicted <GP2> F;426-445/Domain: transmembrane #status predicted <TMN> F;9,23,42,48,78,85,101,107,131,137,143,147,152,155,190,205,353,358,367,379/Binding
                                                                                         A;Molecule type: DNA
A;Residues: 1-333,'X',335-358 <STE2>
A;Cross-references: EMBL:x61352; NID:g60186
C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency A;Reference number: S70417; MUID:92144209; PMID:1736940
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                          submitted to the EMBL Data Library, A;Description: Distinct populations A;Reference number: S21990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Species: human immunodeficiency virus A; Variety: isolate 3L C; Date: 20-Feb-1995 #sequence_revision C; Accession: S22002; S70418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              envelope protein gp120/gp41 - human immunodeficiency virus C;Species: human immunodeficiency virus type 1, HIV-1 \,
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A;Title: Evolution of human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-358 <STE1>
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                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: S22002
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                       "Assignment of intrachain disulfide bonds and characterization of potential glycosylation sites of the type I recombinant human immunodeficiency virus envelope glycoprotein (gp120) expressed in Chinese hamster ovary cells.;
J. Biol. Chem. 265:10373-10382(1990).
                                                                       DISULFIDE BONDS, AND CARBOHYDRATE-LINKAGE MEDLINE-90285159; PubMed=2355006; Leonard C.K., Spellman M.W., Riddle L., Ha Gregory T.J.;
                                                                                                                                      Ratner L., Haseltine W., Patarca R., Livak K.J., St
Josephs S.F., Doran E.R., Rafalski JA., Whitehorn
Baumeister K., Ivanoff L., Petteway S.R. Jr., Pears
Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.
Wong Staal F.
                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE-85111123; PubMed-2578615;
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InterPro; IPR000777; (
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glycoprotein (GP120); T
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There is use by non-profit institutions as long as modified and this statement is not removed. Use entities requires a license agreement (See http or send an email to license@isb-sib.ch).
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MEDLINE=87299196; PubMed=3040055;
Ratner L., Fisher A., Jagodzinski L.L.,
Gallo R.C., Wong-Staal F.;
"Complete nucleotide sequences of functivirus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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InterPro; IPR000777; GP120.
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GP160 precursor [Contains: Exterior membrane
; Transmembrane glycoprotein (GP41)].
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U F.;
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es; Retroviridae; Lentivirus.
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01-FEB-1996
15-JUL-1999
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP120);
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                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE-85228248; PubMed=2988795;
CIOWl R., Ganguly K., Gordon M., C
Shaw G.M., Wong-Staal F., Reddy E.
                                                                                                                                         AIDS;
                                                                                                                                                                                        EMBL; M14100;
HIV; M14100;
                                                                                                                                                                                                                               use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See
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                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type 1 (HXB3 isolate)
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11707;
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InterPro; IPR000328;
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                                 between the Swiss Institute of Bioinformatics and the Embl Outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                        Reitz M.S. Jr., Hall L., Robert-Guroff M., Laut. Shaw G.M., Kong L.I., Weiss S.H., Watters D., Ga. "Viral variability and serum antibody response infected with HIV type 1 (HTLV type IIIB).", AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
       EMBL; U12055; AAA76690.1; -. GlycoSuiteDB; Q70626; -.
                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE=95127297;
                                                                                                                                                                                                           Human immunodeficiency Viruses; Retroid viruse NCBI_TaxID=82834;
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998 (Rel. 36, Last sequence update)
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999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains: Exterior membrane
tein (GP120); Transmembrane glycoprotein (GP41)].
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                                                                                                                                                                                                                                                                                                                     STANDARD;
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es; Retroviridae; Lentivirus.
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Pred. No. 6.5e-15;
Mismatches 0;
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RESULT 6
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AC P03377;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 03, Last sequence u,
DT 15-JUL-1999 (Rel. 38, Last annotation
DE Envelope polyprotein GP160 precursor (CDE glycoprotein (GP120); Transmembrane gly
GN ENV.
OS Human immunodeficiency virus '
OX NCBI_TaxID-1''
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                                  Human immunodeficiency virus type 1 (BRU isolate) (HIV-1)
Viruses; Retroid viruses; Retroviridae; Lentivirus.
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precursor [Contains: Exterior membrane)
precursor qlycoprotein (GP41)].
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Exterior membrane (GP41)) (HIV-1).

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EMBL; A04231; CAA00352.1; -.
PIR; A03975; VCLJLV
HIV; K02013; ENV$BRU.
InterPro; IPR000328; ENV_GP41.
InterPro; IPR000777; GP120.
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J. Virol. 64:3792-3803(1990).
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991 (Rel. 17, Last sequence update)
999 (Rel. 38, Last annotation update)
999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains:
tein (GP120); Transmembrane glycoproteir
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IPR000328; Env_GP41.
IPR000777; GP120.
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 AAA44850.1; -.
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 Polyprotein;
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BY SI
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N-THINKED
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induce syncytium-independent
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(POTENTIAL)

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RESULT 8
ENV_HV1PV
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Matches 33
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21-JUL-1986
15-JUL-1999
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CARBOHYD
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InterPro; IPR000777; Gp120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Polyprotei
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                                                                                                                                                            EMBL; K02083; AAB59873.1; -EMBL; X01762; CAA25903.1; ALT_SEQ. PIR; A03974; VCLJVL. HIV; K02083; ENV$PV22.
                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Capon D.J.;
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Nature 313:450-458(1985).
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Envelope
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th D.H., Cabradilla C.
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, Last annotation update)
GP160 precursor [Contains: Exterior membrane
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97.1%;
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EXTERIOR MEMBRANE GLYCOPROTEIN.
TRANSMEMBRANE GLYCOPROTEIN.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                              expression irus.";
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Pred. No. 1.5e
1; Mismatches
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                                                                                                                                                                                                                                                                                                                        the human
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01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: 91ycoprotein (GP120); Transmembrane glycoprotein ENV.
                                                                                                                                                                                                                                                                                                                                                         ENV_HV1SC P05878;
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   use by modified
                                                                                     MEDLINE-88219542; PubMed=3369091;
Gurgo C., Guo H.-G., Franchiol G., Aldovini A., Collalti E.,
Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. Jr.;
"Envelope sequences of two new United States HIV-1 isolates.
"Irology 164:531-536(1988).
-!- MISCELLANEOUS: THE SC ISOLATE WAS TAKEN FROM AN ARC PATI
1984 IN SOUTHERN CALIFORNIA.
                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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                                                                                                                                                                                            SEQUENCE FROM N.A.
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NCBI_TaxID=11702;
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M17450; ENV$SC.
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MEDLINE=86218077; PubMed=2423250;
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane
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16-OCT-2001 (Rel. 40, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Exterior membrane glycoprotein (GP41)).
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InterPro; IPR000777; GP120.
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NCBI_TaxID=11690;
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es; Retroviridae; Lentivirus
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01-FEB-1991 (Rel.
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InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=90347835;
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polyprotein GP160 precursor (Contains:
tein (GP120); Transmembrane glycoproteir
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3; Mismatches
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GLYCOPROTEIN

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Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R., Markham P.D. Salahuddin S.Z., Wong-Staal F., Gallo R.C., Parks E.S., Parks "Genetic variation in HTLV-III/LAV over time in patients with at risk for AIDS.";
Science 232:1548-1553(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1988 (Rel. 09, Created)
01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP100 precursor [Contains: glycoprotein (GP120); Transmembrane glycoprotein
                                                                                                                                                                modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                            Transmembrane;
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RESULT 14
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01-OCT-1989 (Rel. 12, Last sequence update)
01-OCT-1989 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Eglycoprotein (GP120); Transmembrane glycoprotein
  This
               Komiyama N., Hattori N., Inoue J., Sakuma S. "Nucleotide sequences of gag and env genes o "Nucleotide sequences of in bacteria."; HIV-1 and their expression in bacteria."; AIDS Res. Hum. Retroviruses 5:411-419(1989).
                                                                                                                                                           glycoprotein ENV.
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NCBI_TaxID=11694;
                                                                                                                              Human immunodeficiency virus type 1 (JH:
Viruses: Retroid viruses; Retroviridae;
                                                                            SEQUENCE FROM N.A.
MEDLINE=89352108; PubMed=2669897;
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RESULT 15
ENV_HV1MN
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AC P0587
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Matches 31
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HIV; M21138; ENV$JH3.
InterPro; IPR000727; GP120.
InterPro; IPR000777; GP120.
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91.2%;
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TRANSWEMBRANE GLYCOPROTEIN.

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Pred. No. 6.1e
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GGUT90 C., Guo H.-G., Franchini G., Aldovini A., Collalti E.,
Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. Jr.;
"Envelope sequences of two new United States HIV-1 isolates.";
Virology 164:531-536(1988)
-i- MISCELLANBOUS: THE MN ISOLATE WAS TAKEN FROM A PEDIATRIC A:
PATIENT IN 1984
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AIDS; Coat
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: F
glycoprotein (GP120); Transmembrane glycoprotein
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NCBI_TaxID=11696;
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HIV; M17449; ENV$MN
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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InterPro; IPR000777; GP120.
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97140 MW; D197D809940BE732 CRC64;
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sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
                                                              sp_rodent:*
sp_virus:*
sp_vertebrate:*
                                                                                                                                   sp_phage:*
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sp_mhc:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution:

# SUMMARIES

16	15	14	13	12	11	10	9	8	7	6	տ	4	ω	2	1	Result No.
178	179	179	183	. 183	183	183	183	183	183	183	183	183	183	183	183	Score
97.3	97.8	97.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Query Match
856	854	854	856	856	856	854	854	852	851	752	752	752	748	747	645	Length DB
15	15	15	15	15	15	15	75	15	15	15	15	15	15	15	15	BB
Q90SM7	Q78705	090178	Q74090	Q74599	092877	Q72502	Q85582	Q89797	Q78243	Q70608	Q70605	Q70604	Q70606	Q70607	Q993A6	ID
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18,	17
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Q8UL78	Q8UL82	Q8UL83	Q8UL84	Q8Q850	Q8UL73	Q8UL77	Q8UL79	Q8UL80	Q8UL85	Q8UL88	Q8UL90	Q8UL70	041539	Q72993	Q8Q852	056110	Q8Q851	Q77368	041556	Q80023	069910	Q03805	Q78225	Q03806 ·	. Q69990	Q9Q722	Q993B2	Q993В0
Q8u178 hur		. Q8ul83 huma	Q8u184 huma			Q8u177 huma				Q8u188 huma		Q8u170 huma										Q03805 huma	Q78225 huma		Q69990 huma	. Q9q722 huma	Q993b2 huma	Q993b0 huma
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## ALIGNMENTS

RESULT 1

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1 SLIHSLIEESONQQEKNEQELLELDKWASLWNWF 34	Query Match 100.0%; Score 183; DB 15; Length 645; Best Local Similarity 100.0%; Pred. No. 3.3e-14; Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	NON_TER 1 1 SEQUENCE 645 AA; 72485 MW; B076514BE93362EC CRC64;	Transmembrane.	Piam; PF00517; GP41; 1. AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;	Pfam; PF00516; GP120; 1.	Interpro; IPR000777; GP120.		Proc. Natl. Acad. Sci. U.S.A. 98:4587-4592(2001).		influences	"Localization of CD4+ T cell epitope hotepots to exposed strands of	Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M.,	MEDLINE=21192672; PubMed=11287644;	STRAIN=1007;	SEQUENCE FROM N.A.	[2]	NCBT TaxID=11676:	runda Inmoderictency vitus type I. Viruses Petroid viruses Betroviridae Testivirus	ENV	Truncated envelope glycoprotein (Fragment).	19,	(TrEMBLrel. 17,	01-JUN-2001 (TrEMBLrel: 17, Created)	Q993A6;	Q993A6 PRELIMINARY; PRT; 645 AA.	JA6

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01-NOV-1996 (TrEMBLrel. 01,
01-NOV-1996 (TrEMBLrel. 01,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                         Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blatt "Viral variability and serum antibody response in a la infected with HIV type 1 (HTLV type IIIB)."; AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; GJycoprotein; Polyprotein; Transmembrane.
NON_TER 747 747
NON_TER 747 AA; 84250 MW; 732E836A52245F14 CRC64;
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Submitted (JUL-1994) to EMBL; U12032; AAA76668.1
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                                                                                  STRAIN-LW881;
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                                                      Mulder K.E.;
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Pred. No. 3.8e-14;
Mismatches 0;
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Q70605;
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Q70604;
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Interpro: IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
Viruses; Retroid
NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                          Submitted (JUL-1994) to the EMEL; U12030; AAA76666.1; -
InterPro; IPR000328; EDV GP41.
InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae;
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                     Human immunodeficiency virus type
                                        Envelope glycoprotein
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Pred. No. 3.9e-14;
; Mismatches 0;
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Best Local
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                                                                                          Matches
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Q70608;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger
Shaw G., Kong L., Weiss S., Weters D., Gallo R., B
"Viral variability and serum antibody response in
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [1]
SEQUENCE
                                                                                                                                                                                                             NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn Shaw G., Kong L., Weiss S., Watters D., Gallo R., Blattner W "Viral variability and serum antibody response in a laborat infected with HIV type 1 (HTLV type IIIB).";
ALDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U12031; AAA76667.1; -. InterPro; IPR000328; Env_GP41 InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U12035; AAA76670.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mulder K.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=LW87-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Envelope glycoprotein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1996
01-DEC-2001
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SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                          Coat protein; CER 752 7
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                                                                                                                                                                                                                                                                                                 PF00516; GP120; PF00517; GP41; 1
                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TIEMBLIel. 01, Created)
(TIEMBLIel. 01, Last sequence update)
(TIEMBLIEL. 19, Last annotation update)
                                                                                    100.0%;
larity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
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                                                                                                                                                                                                                                            Glycoprotein; Polyprotein; 752
                                                                                                                                                                                                             84780 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    to the
                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GenBank/DDBJ databases
                                                                                    Score 183; I
Pred. No. 3.9
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 183; Db ...
No. 3.9e-14;
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                                                                                       ).9e-14;
es 0;
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                                                                                                                                                  752;
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Best Local
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Q89797;
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Q78243;
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                                                                                                                SEQUENCE FROM N.A. STRAIN-LW90-2;
                                                                                                                                                                                                                                                                                                    ENV.
                                                                                                                                                                                                                                                                                                                          Envelope glycoprotein
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01-DEC-2001
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Verani P., Rossi G.B.;
"Sequence analysis of HIV-1
chronically infected HUT-78
MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner w
"Viral variability and serum antibody response in a laborat
                                                                                                               Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Titti F., Federico M., Butto S., Orecchia A., Borsetti A., Saggio I., Verani P., Rossi G.; "Variability of HIV-l virus: characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Biological and molecular characterization of producer producer clones from HUT-78 infected with a patient HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=89352106: PubMed=2765297;
Federico M., Titti F., Butto S., Orecchia P
Macchi B., Mangiano N., Verani P., Rossi G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                           SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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Z11530; CAA77628.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein; Glycoprotein; Polyprotein; Transmembrane 851 AA; 96630 MW; 1A3767B9B7E98027 CRC64;
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Pred. No. 4.4e-14;
                                                                                                                                                                                                                                                                        PRT;
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                                                                                    r virol. 66: 3151-3154(1992).

R EMBE: M19921; AAA44992.1; -..

InterPro; IPR000328; Env_GP41.

InterPro; IPR000777; GP120.

Pfam; PF00516; GP120; 1.

Pfam; PF00517; GP41; 1.

AIDS; COAT Protein. -..

SEQUENCE
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Submitted
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lymphocytes.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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01-DEC-2001
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01-NOV-1996
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Interpro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Viruses; Retroid viruses; NCBI_TaxID-11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AIDS; Coat protein; Envelope
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Martin M.A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .E., Buckler-White (JUL-1989) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59:284-291(1986).
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. Retroviruses 10:1143-1155(1994).
                                                                                          Glycoprotein; Polyprotein; Transmembrane 97124 MW; ABA0AlBF36D5595A CRC64;
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); Mismatches
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. 4.4e-14;
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092877;
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SEQUENCE
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InterPro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
ALDS; Coat protein; Glycoprote
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Q72502;
Q1-NOV-1996 (TrEMBLrel. 01,
Q1-NOV-1996 (TrEMBLrel. 01,
Q1-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Salminen M.O., Koch C., Sanders-Buell E., Ehrenberg P.K., Michael N.L., Carr J.K., Burke D.S., McCutchan F.E.; "Recovery of virtually full-length HIV-1 provirus of dive
SEQUENCE FROM N.A. MEDLINE=99098984;
                            Viruses; Retroid viruses;
NCBI_TaxID=57667;
                                      ENV.
Simian-Human immunodeficiency virus.
Simian-Human immunodeficiency virus.
                                                            ENV.
                                                                                                                                                                                                                                                                                                                                                         retrovirus in human and non molecular clone.";
J. Virol. 59:284-291(1986).
EMBL; U26942: AAB60578.1;
                                                                                                                                                                                                                                                                                                                                                                                                                      Adachi A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-NL4 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from primary virus cultures virology 213:80-86(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=11676;
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-> S (IN REF. 2).
-> D (IN REF. 2).
FF2264B3841D1220 CRC64;
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Q74599;
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Q1-NOV-1996
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                             SEQUENCE
                                                                                                                    Pfam; PF00516; GP120; 1 Pfam; PF00517; GP41; 1.
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                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                        Virology
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"Spectrum of Biological Properties
'UTV-1' Tsolates.":
                                                                                                                                                                                                                                                                                      MEDLINE=90101366; PubMed=1688473;
                                                                                                                                                                                                                                                                                                     STRAIN-MCK1
                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=11676;
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J. Virol. 73:976-984(1999).
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PF00517; GP41; 1.
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y 174:103-116(1990).
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97287 MW; 238042A234C56685
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Fanton J.W., Axthelm M.K., Letvin N.L.,
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                                             Score 183; DB 15;
Pred. No. 4.4e-14;
Mismatches 0;
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Pred. No. 4.4e-14;
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Pfam; PF00517; GP41; 1
AIDS; Coat protein; Gly
SEQUENCE 856 AA; 97:
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Q74090;
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                   InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprote
                                                                                                                                                                 Fang H., Pincus S.H.;
Fang H., Pincus S.H.;
"Spontaneous activation of human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases. EMBL; D86069; BAA13003.1; -. InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                                                                                                                                      immunotoxin-resistant variant T cell line.";
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ
EMBL; AF070521; AAC28452.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type Viruses; Retroid viruses; Retroviz NCBI_TaxID=11676;
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"Spectrum of Biological Properties
(HIV-1) Isolates.";
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                                                                                                                                                                                                                                                                                                      J. Virol.
                                                                                                                                                                                                                                                                                                                            selected with immunotoxins infected T cells.";
                                                                                                                                                                                                                                                                                                                                                                          Fang H., Pincus S.H.;
"Unique insertion sequence
                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=95074930;
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Glycoprotein; Polyprotein; Transme 96885 MW; 0808F3AED27C693B CRC64;
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SEQUENCE FROM N.A.

MEDLINE-96013815; PubMed-7474132;

MEDLINE-96013815; PubMed-7474132;

Duensing T.D., Fang H., Dorward D.W., Pincus S.H.;

Processing of the envelope glycoprotein gp160 in immunotoxin-

resistant cell; lines chronically infected with human immunodeficiency

resistant cell;

rivirus type 1 ";

L. Virol. 69:7122-7131(1995).

REMBL; L42371; AAA96326.1; -.

REMBL; L42371; AAA96326.1; -.

RINTERPRO; IPRO00328; Env. GP41.

RINTERPRO; IPRO00328; Env. GP41.

RINTERPRO; IPRO00377; GP120.

RPIAm; PF00516; GP120; 1.

RPIAm; PF00517; GP41.

RR AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.

SEQUENCE 854 AA; 97199 MW; 5B9512216533E256 CRC64;
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Best Local Similarity 97.1%;
Matches 33; Conservative
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1; Mismatches 0;
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1155 Avenue of the Americas

Pennie & Edmonds

COUNTRY: US ZIP: 10036

NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:

ADDRESSEE:

APPLICANT: Bolognesi, Dani P.
APPLICANT: Matthews, Thomas J.
APPLICANT: Wild, Carl T.
TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV
TITLE OF INVENTION: TRANSMISSION

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	400,	Sequence 399, App	Sequence 1, Appli	Sequence 1, Appli		Sequence 1, Appli	Sequence 1161, Ap	1121,	1076,	Sequence 834, App	Sequence 705, App	Sequence 631, App	Sequence 630, App	Sequence 603, App	Sequence 561, App	Sequence 560, App	Sequence 498, App

#### ALIGNMENTS

RESULT 1 US-08-073-028-73

Sequence 73, Application Patent No. 5464933

US/08073028

GENERAL INFORMATION:

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                                                                                                                        ; MOLECULE TYPE: peptide US-08-073-028-73
                                                              Matches
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 34 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: COTUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERRNCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 07-JUN CLASSIFICATION: 51/
                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                              TELEPHONE:
                                                                            Local Similarity
   _
             1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                   amino acid
                                                                                                                                                                                   34 amino acids
                                                                                                                                                                                                                                                 (212) 869-8864/9741
                                                            Conservative
                                                                                                                                                       unknown
                                                                                                                                                                                                                                                                (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                           07-JUN-1993
)N: 514
                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                        Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                         US/08/073,028
                                                            0;
                                                                                                                                                                                                                                                                                               7872-004-999
                                                                         Score 183; DB 1;
Pred. No. 2.6e-16;
                                                            Mismatches
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                                                                                        Length 34;
                                                            Indels
                                                          0;
                                                          Gaps
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US-08-554-616-73

Sequence 73,

Application US/08554616

Patent No. 6133418
GENERAL INFORMATION:

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US-09-082-279B-800
                                                                                                                                                                                                                                                                                                                                                                                                                         ; MOLECULE TYPE:
                                                                                                                                                                                                               Sequence 800, Application US/09082279B
                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                Patent No.
FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
                                                APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
                                                                                                                                               APPLICANT:
                                                                                                               APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/073,028
FILING DATE: 07-JUN-1993
ATTORNEY AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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OPERATING SYSTEM:
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STATE: New York
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                                                                                                                              Guthrie, Kelly
Merutka, Gene
                                                                                                                                                                Barney, Shawn
                                                                                                               Anwer, Mohmed
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                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            unknown
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SYSTEM: PC-DOS/MS-DOS
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Pred. No. 2.6e-16;
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Best Local
                                                                                                                                                                                                                                                     Sequence 74, Application US/08073028 Patent No. 5464933
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Lambert, D.
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC TITLE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
CURRENT APPLICATION NUMBER: US/09/315,304B
CURRENT FILING DATE: 1999-05-20
PRIOR APPLICATION NUMBER: 09/082,279
PRIOR APPLICATION NUMBER: 09/082,279
PRIOR FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1667
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                                                                                                                                                                                                                                           GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                     APPLICANT: Matthews, APPLICANT: Wild, Car TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENGTH: 34
                                                                                              NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS: Pennie &
                                                                                                                                                                                                                       APPLICANT:
COMPUTER READABLE FORM
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nes 34; Conserv
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                              COUNTRY:
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                                                 STATE:
                                                                 CITY:
                                                                                   STREET:
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5. 6348568
                10036
                                                New York
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                                                                                   1155 Avenue of the Americas
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ilarity 100.0%;
Conservative (
                                 USA
                                                                                                                                                                                                       Matthews, Thomas J
                                                                                                                                                                                         Wild, Carl T
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                                                                                                                                                                                                                       Bolognesi, Dani P.
                                                                                                                                                       TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 183; DB 4;
100.0%; Pred. No. 2.6e-16;
Live 0; Mismatches 0;
                                                                                                                                                                       SYNTHETIC PEPTIDE INHIBITORS OF HIV
                                                                                                     Edmonds
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Pred. No. 2.6e-16
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MEDIUM TYPE: Flop COMPUTER: IBM PC OPERATING SYSTEM:

IBM PC compatible SYSTEM: PC-DOS/MS-DOS

Floppy disk

SOFTWARE:

PatentIn Release #1.0, Version #1.25

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RESULT 6
US-08-484-223B-234
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: CORUZZÍ, LAURA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872-004-999
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                              ATTORNEY/AGENT INFORMATION:
NAME: COTUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURENT APPLICATION DATA: APPLICATION NUMBER: US/08/484,223B FILING DATE: 07-UN-1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                            STREET: 1155 AV
 TELEFAX:
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ZIP: 10036-2711
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                TELEPHONE:
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Langlois, Alphonse J
: (212) 790-9090
(212) 869-9741/8864
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Lambert, Dennis M.
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                                                    7872-029
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Pred. No. 2.7e-16;
); Mismatches 0;
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                                 Matches
                                                             Query Match
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: unknown MOLECULE TYPE: peptide
                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 07-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA: APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Bolognesi, APPLICANT: Matthews, APPLICANT: Wild, Carl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS: LENGTH: 35 amino acids
                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: U
ZIP: 10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Pennie & Lumourus
STREET: 1155 Avenue of the Americas
                                            Local Similarity
                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                          TELEFAX:
                                                                                                                                                                                                                        TELEPHONE:
                                                                                                                                                                                                                                                                    REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                   NAME:
                                                                                                                                                 ENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
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 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
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o. 6133418
                                                                                                                                                                                                                                                            /AGENT INC.
COTUZZI, Laura A.
COTUZZI, STANDBER: 30,742
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                                                                                                                                amino acid
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                                                                                                                                                35 amino acids
                                                                                                                                                                                                          : (212) 790-9090
(212) 869-8864/9741
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                                Conservative
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                                                                                                                       unknown
                                                                                                      peptide
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                                            100.0%; Score 183; 100.0%; Pred. No. :
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                                Mismatches
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                                            2.7e-16;
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FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
URRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 799
LENGTH: 35
TYPE: PRT
ORGANISM: Artificial Sequence
                                                 RESULT 10
US-08-474-349A-416
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Sequence 416, Application US/08474349A Patent No. 6333395 GENERAL INFORMATION:
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Best Local Similarity 100.
Conservative
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SEQ ID NO 638
LENGTH: 35
TYPE: PRT
ORGANISM: Artificial Sequence
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GENERAL INFORMATION:
Barney, Shawn
Chrie, Kell
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Best Local :
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APPLICANT:
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CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FRATSFO for Windows Varsion 3 O
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                      Match 100.0%;
Local Similarity 100.0%;
ses 34; Conservative 0
                                                                                                                  2 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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Merutka, Gene
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Pred. No. 2.7e-16;
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Pred. No. 2.7e-16;
Mismatches 0;
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US-09-315-304B-638
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                                                                                                                                                                                                                                                                                                             Patent No. 6348568 GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
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SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 638
                                                                                                                                       APPLICANT: Lambert, D.
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
TITLE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
                                                          CURRENT APPLICATION NUMBER: US/09/315,304B
CURRENT FILING DATE: 1999-05-20
PRIOR APPLICATION NUMBER: 09/082,279
PRIOR FILING DATE: 1998-05-20
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APPLICANT:
                                      NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                        APPLICANT: Barney, S.
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/474,349A
FILING DATE: 07-JUN-1995
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APPLICANT:
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NAME: COTUZZÍ, LAURA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
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TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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STATE: New York
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Merutka, G.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matthews, Thomas
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; OTHER INFORMATION: Core polypeptide US-09-315-304B-799
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: Sequence 799, Application US/09315304B

Catent No. 6348568
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CURRENT FILING DATE: 1999-05-20
PRIOR APPLICATION NUMBER: 09/082,279
PRIOR FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1667
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                            Patent No. 5464933
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Best Local Similarity
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TYPE: PRT
ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 35
                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                     APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T.
                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                       TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                   COUNTRY:
                                                                                                   CITY: New York
                                                                                                                   STREET:
                                                                                       STATE:
                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                              2 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                                                                                                                                                                                                                                                                              1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
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                                                     10036
                                                                 New York
                                                                                                                                                                                                                                                                                                         Application US/08073028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lambert, D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anwer, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Guthrie, K. Merutka, G.
                                                                                                                   1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
IBM PC compatible
                                                                                                                                       Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 183; DB 4; 100.0%; Pred. No. 2.7e-16;
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Pred. No. 2.7e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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RESULT 14
US-08-486-099-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                         COUNTRY: USA
ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: TEM PC PCS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
TELEX: 6614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 07-JUN-199
CLASSIFICATION: 514
                                                                                                               CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Coruzzi, Laura A.
                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 78:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                              REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION: (212) 790-9090
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                                                                                                                                                                                                                                                                                                                                    CITY:
STATE:
                             TELEFAX:
                                                                                                                                                                 APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 36 amino acids
TYPE: amino acid
TYPE: single
STRANDEDNESS: single
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SOFTWARE: PatentI
                                                                                               REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
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                                                                                                                                                                                                                                                                                                                                                    New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/08486099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Coruzzi, Laura A.
                                                                                                                                                                                                                                                                                                                                  New York
            66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                                   1155 Avenue of the Americas
                                (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Petteway, Stephen R.
Langlois, Alphonse J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Barney, Shawn O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matthews, Thomas
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bolognesi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lambert, Dennis M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                     Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-1993
                                                                                                             Laura A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                    B VIRUS TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS
                                                                                                                                                                                 US/08/486,099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dani P
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                                                                                             30,742
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                                                                                 7872-031
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Pred. No. 2.8e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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RESULT 15
US-09-071-877-1
Figuence 1, Application US/09071877

Figuence 1, Application US/09071877

Leneral INFORMATION:

APPLICANT: Kang, Myung-Chol

APPLICANT: Bray, Brian

APPLICANT: Mader, Catherine

APPLICANT: Merutka, Gene

APPLICANT: Merutka, Gene

FIITE OF INVENTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS

FILE REFERENCE: 7872-050

CURRENT FILING DATE: 1998-05-01

NUMBER OF SEQ ID NOS: 19

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTH: 36

TYPE: PRT

ORGANISM: Human immunodeficiency virus

US-09-071-877-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: unknown
; MOLECULE TYPE: peptide
US-08-486-099-1
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                                                                        Query Match 100.0%; Score 183; DB 3; Best Local Similarity 100.0%; Pred. No. 2.8e-16; Matches 34; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 36;
                                                                          Indels
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rch completed: May 16, 2003, 11:22:11 time: 9.62651 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         May 16, 2003, 11:20:00; Search time 14.8835 Seconds (without alignments) 220.333 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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183
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Published_Applications_AA: *
                                                                                        //gn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
//gn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
//gn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
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//gn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

19	18	17	16	15	14	13	12	11	10	9	8	7	6	U	4	w	2	·	Result No.
183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	Score
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Query Match
268	268	268	256	254	232	221	177	56	46	37	36	36	36	36	36	36	36	36	Query Match Length
10	10	10	9	9	9	9	9	10	10	9	10	10	10	10	10	9	9	9	₽B
US-09-854-816-18	US-09-854-816-17	US-09-854-816-16	US-10-059-271-97	us-10-059-271-82	US-10-059-271-81	US-10-059-271-84	US-10-040-349B-2	US-09-779-451-4	US-09-779-451-41	US-09-848-616-176	US-09-854-816-108	US-09-854-816-1	US-09-834-628-1	US-09-779-451-5	US-09-796-202-10	US-09-493-346-1	US-10-116-797-1	US-09-874-475-16	ID
18,	17	Sequence 16, Appl	Sequence 97, Appl	Sequence 82, Appl	81,	Sequence 84, Appl	Sequence 2, Appli	Sequence 4, Appli	Sequence 41, Appl	Sequence 176, App	10	Sequence 1, Appli	۲,	Sequence 5, Appli	Sequence 10, Appl	Sequence 1, Appli	Sequence 1, Appli	Sequence 16, Appl	Description

## ALIGNMENTS

RESULT 1 US-09-874-475-16

```
Sequence 1, Application US/10116797
Publication No. US20030044411A1
GENERAL INFORMATION:
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING HIVETILE REFERENCE: 64672-A
CURRENT APPLICATION NUMBER: US/10/116,797
CURRENT FILING DATE: 2002-10-15
                                                                                                                                                                                                      RESULT 2
US-10-116-797-1
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LENGTH: 36
; TYPE: PRT
; ORGANISM: Fusion Inhibitor Peptide
US-09-874-475-16
                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 183; DB 9; Best Local Similarity 100.0%; Pred. No. 2.7e-15; Matches 34; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 16, Application US/09874475 Publication No. US20020182592A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/874,475
CURRENT FILING DATE: 2001-06-04
NUMBER OF SEQ ID NOS: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS FILE REFERENCE: 2793/65166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Petropoulos, Christos J. APPLICANT: Parkin, Neil T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                        Whitcomb,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Huang, Wei
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                                                                         HIV-1 INFECTION
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 36;
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; NAME/KEY: PEPTIDE
; LOCATION: (1)..(36)
; OTHER INFORMATION: T-20
US-09-796-202-10
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LENGTH: 36
: TYPE: PRT
: ORGANISM: Homo sapiens
US-10-116-797-1
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Best Local Similarity 100.0%;
Matches 34; Conservative 0
                                                                                                                                                                     SOFTWARE: PatentIn version 3.0 SEQ ID NO 10 LENGTH: 36 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%; Score 183; DB 9; Best Local Similarity 100.0%; Pred. No. 2.7e-15; Matches 34; Conservative 0; Mismatches 0;
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 10, Application US/09796202 Patent No. US20020068813A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Olson, William C
APPLICANT: Maddon, Paul J
TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1
TITLE OF INVENTION: Infection
FILE REFERENCE: 61009
CURRENT APPLICATION NUMBER: US/09/493,346
CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
TITLE ON INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
FILE REFERENCE: 2048/61010/JPW/SHS
CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      equence 1, Application US/09493346
ablication No. US20030082185A1
ENERAL INFORMATION:
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                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                        59-796-202-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                    ORGANISM: unknown
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                                                                                                                                    FEATURE:
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Pred. No. 2.7e-15;
   Score
Pred.
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 183; DB 10;
No. 2.7e-15;
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                   Length 36;
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US-09-834-628-1
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US-09-779-451-5
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US-09-779-451-5
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                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
NUMBER OF SEQ ID NOS: 13
SOFTWARE: PATENTIN VEY: 2.1
SEQ ID NO 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn version 3.0 SEQ ID NO 5
                                                                                           Query Match
Best Local :
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APPLICANT: YU, YEON GYU
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                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PEEPIDES FOR INHIBITION OF HIV INFECTION
FILE REFERENCE: 05823.0198-00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Wild, Carl T.
APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
APPLICANT: NIVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE OF INVENTION 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR PELING DATE: 2000-09-28
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS:
                                                                                                                                                                OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial Sequence
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                                                            Local Similarity 100.0%; Local Similarity 100.0%; es 34; Conservative (
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mes 34; Conserv
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                 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
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SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                     Score 183; DB 10;
Pred. No. 2.7e-15;
); Mismatches 0;
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Pred No. 2.7e-15;
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US-09-854-816-1
                                                                                                                                                                                                         US-09-854-816-108 ; Sequence 108, Application US/09854816
                                                                                                                                                                                                                                                 RESULT 8
                                                                                                                                                                     Patent No. US20020151473A1 GENERAL INFORMATION:
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Best Local Similarity
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Wilpatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: TOTCHIA, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: Linear MOLECULE TYPE: DP178
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NUMBER OF SEQUENCES:
                                     TITLE OF
                                                                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 36 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                     INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INVENTION: Constrained Helical Peptides and Methods of
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                                                                                                                                                   Andrew C. Braisted
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Melissa A. Starovasnik
                                                                     J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                             J. Kevin Judice
                                                                                                           Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J. Kevin Judice
Robert S. McDowell
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Making Same
: 113
                                   Constrained Helical Peptides and Methods of
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                                                     Wells
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                                                                                                                                                                                                                                                                                                                                                                                                   Score 183; DB 10; Pred. No. 2.7e-15;
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                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                   Length 36;
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TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 176
LENGTH: 37
TYPE: ~~~
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                                                                                                    ; OTHER INFORMATION: DP178c peptide US-09-848-616-176
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                                                     Query Match
Best Local :
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Best Local Similarity
                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 176,
                                                                                                                                                                                                                                                                                                                                                                                                                                            Publication No.
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Sebbel, Peter APPLICANT: Dunant, Nico
                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                           FEATURE
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                                  Local Similarity
les 34; Conserv
1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: South San
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                      Dunant, Nicolas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09848616
                                100.0%; ilarity 100.0%; Conservative 0
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                               Score 183; DB y;
Pred. No. 2.8e-15;
""smatches 0;
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Pred. No. 2.7e-15;
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                                                                   Length 37;
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SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37

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; SEQ ID NO 4
. LENGTH: 56
. TYPE: PRT
. ORGANISM: Human immunodeficiency virus type
US-09-779-451-4
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                                                                              US-10-040-349B-2
                                                                                                  RESULT 12
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Sequence 2, Application US/10040349B publication No. US20030082521A1 GENERAL INFORMATION:
APPLICANT: Brasseur, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09779451 Patent No. US20020094521A1
                                                                                                                                                                                                                                                                        Query Match
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PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection o
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Allaway, Graham P. TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US PRIOR FILING DATE: 2000-02-10 NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2000-09-28
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LENGTH: 46
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                                                                                                                                                       18 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 51
                                                                                                                                                                                                                                                     Local Similarity
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                                                                                                                                                                                             1 SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 34
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Pred. No. 4.3e-15;
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Pred. No. 3.5e-15;
; Mismatches 0;
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Query Match
Best Local Similarity
""" hes 34; Conserv
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                                                                          US-10-059-271-81

; Sequence 81, Application US/100

; Publication No. US20030082208A1
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US-10-059-271-84
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Best Local Similarity
Matches 34; Conserv
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                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 84
LENGTH: 221
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER:
CURRENT FILING DATE: 2002-C
NUMBER OF SEQ ID NOS: 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
               APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: BUDDE, ECKHARD
APPLICANT: NITOCLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE
TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Krell, Tino TITLE OF INVENTION: Polypeptide Inducing Antibodies Neutralizing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/059,271
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APPLICANT: BUDDE
                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 22
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: ALBRE-22
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TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: Peptide
LOCATION: (1)..(1
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                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
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                                                                                                                                                                                    SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
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                                                                                             Application US/10059271
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HEINRICH
                                                                                                                                                                                                                                                                                                                                  Description of Artificial Sequence: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002-07-09
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Pred. No. 1
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Pred. No. 1.8e-14;
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SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 81

LENGTH: 232

TYPE: PRT

ORGANISM: Artificial Sequence
FEARURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: peptide
US-10-059-271-81
                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
US-10-059-271-82
Sequence 82, Application US/10059271
Publication No. US20030082208A1
GENERAL INFORMATION:
Search completed: May 16, 2003, 12:10:23 Job time : 14.8835 secs
                                                                  Qy
                                              В
                                                                                          Query Match
Best Local Similarity
Matches 34; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
Atches 34; Conservative
                                                                                                                                          OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide -10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22 CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31 PRIOR APPLICATION NUMBER: DE 101 06 295 PRIOR FILING DATE: 2001-02-02 NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                      100.0%;
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                                                                                                     Score 183; DB 9;
Pred. No. 2.1e-14;
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Pred. No. 1.9e-14;
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C;Superfamily: type E retrovirus env polyprotein C;Keywords: AIDS; capsid protein; coat protein; F;1-30/Domain: signal sequence #status predicted
                                                                                                            A;Molecule type: DNA
A;Residues: 1-855 <SAN>
A;Cross-references: GB:K02007; NID:g328658; PIDN:AAB59882.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:X61353; NID:g60188; PIDN:CAA43618.1; PID:g60189 R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992 A;Title: Distinct populations of human immunodeficiency virus type 1 in blood A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood and ce A;Reference number: S21990
A;Accession: S22004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Дb
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                                                                                           C; Genetics:
                                                                                                                                                                                                          A; Title: Nucleotide sequence and expression of an AIDS-associated retrovirus (ARV-2). A; Reference number: A04003; MUID:85090453; PMID:2578227
                                                                                                                                                                                                                                                      Science 227, 484-492,
                                                                                                                                                                                                                                                                                                          A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                C; Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                             env polyprotein precursor - human immunodeficiency virus type 1 (isolate ARV-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-292, 'X', 294-357 <STE2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Reference number: A; Accession: S70419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-357 <STE1>
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C;Keywords: cap
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                                                                           A;Gene:
                                                                                                                                                                                       A; Accession: A03976
                                                                                                                                                                                                                                                                                                   C; Accession: A03976
                                                                                                                                                                                                                                                                                                                                                                                       N; Alternate names: coat polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: EMBL:X61353;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000; Accession: S22004; S70419
                                                                                                                                                                                                                                                                           Sanchez-Pescador, R.; Power, M.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ariety: isolate 4B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             plope protein gp120/gp41 - human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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  #status predicted
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Pred. No. 2.1e-13;
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       glycoprotein;
d <SIG>
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                                                                                                                   PID: 9328666
                       immunodeficiency; polyprot
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                                                 Matches
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A;Cross-references: EMBL:X61355; NID:g60179; PIDN:CAA43622.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992 A;Title: Distinct populations of human immunodeficiency virus A;Reference number: $70417; MUID:92144209; PMID:1736940 A;Accession: $70421
                                                                     A; Molecule type: DNA
A; Residues: 1-140,'X',142-312,'X',314-357 <STE2>
A; Cross-references: EMBL:X61355; NID:g60179
C; Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          envelope protein gp120/gp41 - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
A;Variety: isolate 27B
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                                                                                                                                                                              A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-357 <STEl>
                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: S21990
A; Accession: S21994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991 A;Description: Distinct populations of HIV-1 in blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Date: 20-Feb-1995 #sequence_revision C; Accession: S21994; S70421
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A;Experimental source: patient L
A;Note: submitted to the EMBL Data Library, July 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-357 <ST2>
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A; Title: Distinct populations of human immunodeficiency
A; Reference number: $70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R; Steuler, H.; Storch-Hagenlocher, B.; Wildemann,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 4L) C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;31-509/Product: exterior membrane glycoprotein #status predicted <EXT>
                        Query Match
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86.1%;
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Pred. No. 2.7e-13;
Score 177; DB 2; Pred. No. 1.3e-13;
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1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF

36

Conservative

Mismatches

Indels

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Gaps

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В
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A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; PID:g60183
C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. R;Steuler, Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency virus A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    envelope protein gp120/gp41 - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 28 C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000 C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000 C;Accession: S21998; S70425
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C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyprot
E;1-253/Product: coat protein gp120 (fragment) #status predicted <GP1>
F;254-445/Product: coat protein gp41 (fragment) #status predicted <GP2>
F;426-445/Domain: transmembrane #status predicted <TMN>
F;9,23,42,48,78,85,101,107,131,137,143,147,152,155,190,205,353,358,367,379/Binding site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguyen, P.N.; Gibbs, R.A. Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
A;Title: Evolution of human immunodeficiency virus type 1 nucleotide sequence diversity A;Reference number: A41621; MUID:92107924; PMID:1763038
A;Accession: A41621
                                                                                                                                                                                                                                                                                                                                                                       A; Reference number: $70417; MUID:92144209; A; Accession: $70425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Note: host Homo sapiens (man)
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N;Contains: amino end of coat protein gp41; carboxyl end of coat protein gp120 C;Species: human immunodeficiency virus type 1, HIV-1
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                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary
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A; Residues: 1-358 <STE1>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Steuler, H.; Storch-Hageniuch, July 1991
mitted to the EMBL Data Library, July 1991
scription: Distinct populations of HIV-1 in blood and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reference number: S21990
Accession: S21998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polyprotein M - human immunodeficiency virus type 1 (fragment)
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TTSLIYTLIEQSQNQQEKNEQELLELDKWASLWNWF 175
                                                          YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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                                                                                                                  Conservative
                                                                                                                                            88.0%;
83.3%;
                                                                                                               Score 176; DB
Pred. No. 1.7e
4; Mismatches
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1.7e-13;
hes 1;
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RESULT 14
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A;Molecule type: DNA
A;Residues: 1-854 <OBR>
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C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
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A;Molecule type: mRNA
A;Residues: 1-851 <CAR>
                                                                                                                                                                C; Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                               A;Title: HIV-1 tropism for mononuclear phagocytes can be A;Reference number: S13288; MUID:91043044; PMID:2172833 A;Accession: S13288
                                                                                                                                                                                                                                                                                                               Nature 348, 69-73, 1990
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R;O'Brien, W.A.; Ko
                                                                                                                                                                                                                                                                                                                                                                                                                                           S13288
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C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 26-Aug-1999
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636 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                               Local Similarity es 30; Conserv
                   1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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83.3%;
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Pred. No. 6.1e-13;
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Pfam; PF00517; GP41;
AIDS; Coat protein; Po
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Viruses; Retroid viruses;
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE-86218077;
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polyprotein GP160]; Transmembrane glycoprotein
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01-FEB-1991 (Rel. 17, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
91ycoprotein (GP120); Transmembrane 91ycoprotein
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                                                                       J. Virol. 64:4016-4020(1990).
                                                                                                                                                                                       Human immunodeficiency virus type 1 (SE: Viruses; Retroid viruses; Retroviridae; NCBI_TaxID=11690;
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                               SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EN
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NCBI_TaxID=11697;
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InterPro; IPR000777; GP120.
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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European Bioinformatics Institute.
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Viruses; Retroid viruses;
NCBI_TaxID=11691;
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J. Virol. 64:4390-4398(1990)
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InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Polyprotei
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999 (Rel. 38, Last annotation update)
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tein (GP120); Transmembrane glycoprotein
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O1-OCT-1989 (Rel. 12, Last sequence update,
O1-OCT-2001 (Rel. 40, Last annotation update)
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Envelope polyprotein GP160 precursor glycoprotein
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                                                                       CARBOHYD
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IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      equires a license agreement email to license@isb-sib.ch
                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein;
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Buckler-White A.;
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Gaps
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Human immunodeficiency virus type 1 (22/CDC-Z34 isolate)
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI\_TaxID=11683; s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EM European Bioinformatics Institute. There are no restr (See http://www.isb-sib.ch/announce/ ormatics and the EMBL outsing There are no restrictions as its content is in Usage Exterior n (GP41)]. bу and EMBL outstation membrane a collaboration for

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ENV_HY1Z6

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AC P04580;

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Matches 31
PIR; D26192; VCLJZR.
HIY; K03458; ENV$26
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                    Srinivasan A., Anand R., Yo
Schochetman G., Curran J.,
Sanchez Pescador R.;
                                                                                                                                                                                                                  "Molecular characterization of human immunodeficiency virus zaire: nucleotide sequence analysis identifies conserved and domains in the envelope gene.";
Gene 52:71-82(1987).
                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE=87248097;
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Viruses; Retroid viruse
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31; Conservative
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tein (GP120);
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and R., York D., Ranganathan
urran J., Kalyanaraman,V.S.,
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, Last annotation update)
GP160 precursor [Contains:
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86.1%;
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Pred. No 1.1e
3; Mismatches
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.1e-13;
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Luciw P.A.,
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ENV_HV1SC
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Best Local S
Matches 31
                                                                                      01-NOV-1988 (Rel. 09, Created)
01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: 91/90protein (GP120): Transmembrane glycoprotein
                                                                                                                                                            ENV_HV1SC
P05878;
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Signal.
SIGNAL
CHAIN
                                    Human immunodeficiency
Viruses; Retroid viruse
NCBI_TaxID=11702;
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SEQUENCE FROM N.A MEDLINE-88219542;
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PubMed=3369091;
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86.1%;
                                                  virus type 1 (SC isolate) (I
es; Retroviridae; Lentivirus
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Query Match
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PIR; B28922; V
HIV; M17450; E
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Fast annotation update)
Envelope polyprotein GP160 procursor [Contains:
glycoprotein (GP120); Transmembrane glycoprotein
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Sanchez-Pescador R., Power M.D., Barr
Stempien M.M., Brown-Shimer S.L., Gee
Levy J.A., Dina D., Luciw P.A.;
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Viruses; Retroid viruse
NCBI_TaxID=11685;
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K02007;
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 Polyprotein;
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es; Retroviridae; Lentivirus.
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EMBL; A07108; CAA00616.1; -.
HIV; K03454; ENVSEL1
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                            MEDLINE=86245056; pubMed=2424612;
Alizon M., Wain-Hobson S., Montagnier L., Sonigo P.;
"Genetic variability of the AIDS virus: nucleotide sequence analysis
of two isolates from African patients.";
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Viruses; Retroid viruse
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                                                                                               Coat
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32; Conser
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tein (GP120); Transmembrane alucorrotein
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                                                                                                                                                                                                                                                                                                                                                                                             virus type 1 (ELI isolate) (HIV-1).
es; Retroviridae; Lentivirus.
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EXTERIOR MEMBRANE GLYCOPROTEIN
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A3BC20573AAC41A2
                                                                                               Glycoprotein;
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                   MEDLINE-86235450; PubMed=3012778;
Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R., Markham P.D. Salahuddin S.Z., Wong-Staal F., Gallo R.C., Parks E.S., Parks Genetic variation in HTLV-III/LAV over time in patients with at risk for AIDS.", science 232:1548-1553(1986).

THISCELANEOUS: ISOLATES WMJ1, WMJ2, AND WMJ3 WERE OBTAINED BLOOD SAMPLES SEQUENTIALLY TAKEN FROM A TWO-YEAR OLD HAITI WAS PERIMATALLY INFECTED BY HER MOTHER.
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MEDLINE-85111123; PubMed-2578615;

Ratner L., Haseltine W., Patarca R., Livak

Josephs S.F., Doran E.R., Rafalski J.A., WI

Baumeister K., Ivanoff L., Petteway S.R. J.

Lautenberger J.A., Papas T.S., Ghrayeb J.,
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IPR000777; GP120.
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  Polyprotein;
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J.A., Whitehorn E.A.,
S.R. Jr., Pearson M.L.,
yeb J., Chang N.T., Gall
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21-JUL-1986
15-JUL-1999
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AIDS;
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15-JUL-1999 (Rel. 38, Last
Envelope polyprotein GP160
glycoprotein (GP120); Trans
                                                                                                   Signal.
SIGNAL
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HIV; M15654; ENV$BH102.
                                                                                                                                                                                                                     EMBL;
                                                                                                                                                       Pfam;
                                                                                                                                                                 InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                 potential glycosylation sites of the type 1 recombinant human immunodeficiency virus envelope glycoprotein (gpl20) expressed in Chinese hamster ovary cells.";
J. Biol. Chem. 265:10373-10382(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                 Gregory T.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ratner L., Haseltine W., Patarca R., Livak K.J., Starcich B.R., Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A., Baumeister K., Ivanoff L., Petteway S.R. Jr., Pearson M.L., Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.T., Gallo R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1 (BH10 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nature
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"Complete nucleotide sequence
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3P160 precursor [Contains: E
Transmembrane glycoprotein
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                     Ratner L., Fisher A., Jagodzinski L.L., Mitsuya H., Liou
Gallo R.C., Wong-Staal F.;
Submitted (APR-1997) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                              ENV_HV1H2 STANDARD; PRT; 856 AA.
P04578; 009779;
13-AUG-1987 (Rel. 05, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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                                                                                                                                     Ratner L., Fisher A., Gallo R.C., Wong-Staa
                                                                                                                                                                                                       Human immunodeficiency virus type 1 (HXB2 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID-11706;
                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE=87299196; PubMed=3040055;
                                                                                                               virus
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Wong-Staal F.;
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Viruses; Retroid viruses;
NCBI_TaxID=11707;
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or send an email to license@isb-sib.ch).
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polyprotein GP160 precursor [Contains: E
polyprotein (GP120); Transmembrane glycoprotein
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Title:
Perfect score:
Sequence:

US-09-623-533A-4
200
1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

671580 segs, 206047115 residues

Searched:

I number of hits satisfying chosen parameters:

671580

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : 5: 6: 7: 7: 10: 110: 112: 113: 115: sp\_mammal:\*
sp\_mhc:\* sp\_plant:\*
sp\_rodent:\*
sp\_virus:\* sp\_phage:\* sp\_organelle:\* sp\_invertebrate:\* sp\_human:\* sp\_vertebrate:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

sp\_unclassified:\*
sp\_rvirus:\*
sp\_bacteriap:\*
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# SUMMARIES

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# ALIGNMENTS

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O9YRS7;
O1-MAY-1999 (TrEMBLrel. 10,
O1-MAY-1999 (TrEMBLrel. 10,
O1-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Genotyping and phenotyping analysis of B and non-B Human immunodeficiency virus type 1 subtypes from patients under HAART."; submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

EMBL; AF16553; AAF08498.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                                          Jones J., Ward J.;
"Surveillance of Central African Nationals living in the United reveals multiple subtypes of HIV-1 Group M and Group O.";
Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF096339; AAD04414.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                      Sullivan P.J., Do A., Ellen Robbins K., Lal R., Storck
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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Viruses; Retroid viruses; Retroviridae;
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Pfam; PF00517; GP41; 1.
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                           1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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M., Eyer W., Passioni L.F.C., Meneze
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Pred. No. 2.6e-16;
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RESULT 5
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01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation updat
                                                                                               MEDITINE-20134570; PubMed-10669328;
Medidle P.J., Ganea C.E., Irwin K.L., Pieniazek D., McGowan J.P.,
Olivo N., Ramos A., Schable C., Lal R.B., Holmberg S.D., Ernst J.A.;
"Presence of human immunodeficiency virus (HIV) type 1, group M, non-B
subtypes, Bronx, New York: a sentinel site for monitoring HIV genetic
diversity in the United States.";
Infect. Dis. 181:470-475(2000).
EMBL; AF199049; AAG02311.1;
InterPro; IPR000328; Env_GP41.
Pfam; PF00517; GP41; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (NOV-1997) to the EMBL; AF034062; AAC79314.1;
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                                                            NON_TER
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Viruses; Retroid viruses; Retroviridae;
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                                                                                                                                                                                                                                 STRAIN=BX158;
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                                                                                        Transmembrane.
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Pred. No. 6.1e-16;
2; Mismatches
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Pred. No. 6.1e-16;
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01-JAN-1998 (TrEMBLrel. 05, Last;
01-DEC-2001 (TrEMBLrel. 19, Last;
Envelope glycoprotein (Fragment).
                                                                                                                                                                                     Connor R.I., Korber B.T.M., Graham B.S., Hahn B.H., Ho D.D., Walker B.D., Neumann A.U., Vermund S.H., Mestecky J., Jackson S Fenamore E., Cao Y., Gao F., Kalams S., Kunstman K.J., McDonald McWilliams N., Trkola A., Moore J.P., Wolinsky S.M.; "Immunological and virological analyses of persons infected by immunodeficiency virus type 1 while participating in trials of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Comparison of complete env gene sequences from symptomatic primary HIV type 1 infection."; AIDS Res. Hum. Retroviruses 15:1035-1039(1999).
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MEDLINE=99372987; PubMeu-
                                                                    recombinant gpl20 subunit vacc J Virol. 72:1552-1576(1998).
EMBL; U84817; AAC58848.1; .
InterPro; IPRO00328; Env_GP41.
InterPro; IPRO00777; Gpl20.
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Viruses; Retroid viruses; Retroviridae;
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(TrEMBLrel. 05, Last sequence up
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biffier C., Giraud A.,
     Glycoprotein;
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94.4%;
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Pred. No. 4.3e-15;
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RESULT 9
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Q69898
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Best Local
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NON_TER
SEQUENCE
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"Neutralization of divergent human immunodeficiency virus variants and primary isolates by IAM-41-2F5, an anti-gp41 monoclonal antibody.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NON_TER
SEQUENCE
               and D infections in Uganda.";
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ
EMBL; AF307734; AAL08795.1;
                                                                                                                                                ENV.
                                                                                                                                                                 01-DEC-2001 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
                                               Hu D.J., Baggs J., Downing R.G., Pieniazek D., Biryahwaho B., Sempala S.D.K., Rayfield M.A., I "Similar distribution and continued predominan
                                                                                                                                                                                                                                                                                                                                                                                                rrog. Natl. Acad. Sci. U.S.A. 91:3348-3352(1994).
EMBL; U06728; AAA19141.1; -.
InterPro; IPR000328; Env_GP41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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01-DEC-2001
                                                                                STRAIN-UG;
                                                                                                                         Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
                                                                                                                                                         Envelope
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InterPro; IPR0
Pfam; PF00517;
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                                                                                                              NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                 Transmembrane.
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IPR000328; Env_GP41
0517; GP41; 1.
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91.7%;
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94.4%;
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Pred. No. 4
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Pred. No. 3.3e-16;
1; Mismatches 1;
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                                                           Dondero T.
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                                                 of HIV-1 subtypes
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RESULT 11
Q9IJRO
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Q9YXR1
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Q9IJRO;
01-OCT-2000 (
01-OCT-2000 (
01-DEC-2001 (
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01-MAY-1999 (TrEMBLrel. 10,
01-MAY-1999 (TrEMBLrel. 10,
01-DEC-2001 (TrEMBLrel. 19,
Envelope glycoprotein immunc
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NON_TER 122
SEQUENCE 122
Masciotra S., Livellara B., Belloso W., Clara L., Tanuri A., Ramos Baggs J., Lal R., Pieniazek D.;
"Evidence for a high frequency of HIV-1 subtype F infections among heterosexual population in Buenos Aries, Argentina.";
AIDS Res. Hum. Retroviruses 16:1007-1014(2000).
EMBL; AF220672; AAF74224.1;
                                                                                                                                                                                                                                                                                                                                                           NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                              "HIV-1 subtypes among blood Submitted (NOV-1997) to the EMBL; AF034042; AAC79294.1; InterPro; IPR000328; Env_GP4
                                                                                        SEQUENCE FROM N.A.
                                                                                                             NCBI_TaxID=11676;
                                                                                                                         Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                        Envelope glycoprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. STRAIN-RJ96BRP019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viruses; Retroid
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type
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                                                                  MEDLINE=20346416; PubMed=10890362;
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122 AA;
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Brindeiro R.,
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Last annotation updat
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Pred. No. 1.1e-15;
1; Mismatches 1;
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Pred. No. 8e-16;
D; Mismatches
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, Pieniazek D.,
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RESULT 13
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01-MAR-2001 (TrEMBLrel. 16,
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   Olivo N., "Presence
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Q9IJQ3;
            MEDLINE=20134570; PubMed=10669328;
Weidle P.J., Ganea C.E., Irwin K.L.
Olivo N., Ramos A., Schable C., Lal
                                                                  NCBI_TaxID=11676;
[1]
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Envelope glycoprotein (F
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"Evidence for a high frequency of HIV-1 subtype F infections"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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                                            SEQUENCE FROM N.A. STRAIN=BX774;
                                                                                       Human immunodeficiency virus type Viruses; Retroid viruses; Retrovir
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   Ramos A., of human
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01-OCT-2000 (TrEMBLrel. 15, Created)
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01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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STRAIN-UG;
                              Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
                                                                                        01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
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EMBL: AF220699; AAF76818.1;
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11676;
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J. Infect. Dis. 181:470-475(2000).
EMBL; AF190963; AAG02325.1;
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InterPro; IPR000328; Env_GP41.
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                                                                                                                                                           InterPro; IPR000328; Env_GP41.
Pfam; PF00517; GP41; 1.
                                                                                                                                                                                      Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AF307722; AAL08783.1; -.
                                                                                                                                               Transmembrane.
78 YTGIIYNLLEESQNQQEKNEQELLALDKWASLWNWF 113
              1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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                                            262574 seqs, 29422922 residues
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Minimum DB seq length: 0
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Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Issued\_Patents\_AA:\*

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6: /cgn2\_6/ptodata/1/iaa/packfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

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2	200	•		Sū	-08-486-099-4	4,
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4	200			SD	-08-484-223B-4	4,
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6	200	100.0		US		4,
7	200			SD	-485	4,
8	200	100.0		Sn	-08-471-913A-4	4,
9	200			Sn	-08-554-616-4	4,
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US-08-965-056-110 US-08-965-056-13 US-08-965-056-67 US-08-965-056-67 US-08-965-056-67 US-08-647-714-6 US-08-647-714-6 US-09-570-921-19 US-08-965-056-642 US-09-970-921-5 US-09-131-304B-642 US-09-131-304B-642 US-09-131-304B-642 US-09-2570-921-5 US-09-2570-921-5 US-09-2570-921-5 US-09-2570-921-3

# ALIGNMENTS

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			CHURATER	
,			CORRESPONDENCE ADDRESS: ADDRESSEE: Pennie & Edmonds STREET: 1155 Avenue of the Americas CITY: New York STATE: New York COUNTRY: USA ZIP: 10036 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25	
		S OF HIV	US-08-073-028-4 US-08-073-028-4 Sequence 4, Application US/08073028 ; Patent No. 5464933 ; GENERAL INFORMATION: APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T. TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS TITLE OF INVENTION: TRANSMISSION NUMBER OF SEQUENCES: 74	·········

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                                                                                                              Sequence 4, Application Patent No. 6017536
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ZIP: 10.35-2/11
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
TOWNTER: IBM PC compatible
TOWNTER: PC-DOS/MS-DOS
TOWNTER: PC-DASC #1.0,
                                                                                                 GENERAL
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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TOPOLOGY: un
MOLECULE TYPE:
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TITLE OF
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Local Similarity 100.0%;
nes 36; Conservative (
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REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
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T: Petteway, Stephen R.
T: Langlois, Alphonse J.
INVENTION: COMPOSITIONS FOR INHIBITION OF
INVENTION: MEMBRANE FUSION-ASSOCIATED EVE
                                                                                                                               Application US/08360107A
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                  Barney, Shawn O.
Lambert, Dennis M.
                                                Bolognesi, Dani P. Matthews, Thomas J. Wild, Carl T.
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Petteway,
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Pred. No. 1.8e-18;
Mismatches 0;
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LENGTH: 36 amino acids
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION:
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                                                                                    STATE: New York
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COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                             COUNTRY: USA
ZIP: 10036-2711
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                                                                                                                                                                                                                                                                                                     Bolognesi, Dani P. Matthews, Thomas J. Wild, Carl T.
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Langlois, Alphonse
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Lambert, Dennis M.
                                                                                                                                           Pennie &
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                                                                                                                                                                                                          COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
                                                                                                                                                                          TRANSMISSION 245
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                                                                                                                                           Edmonds LLP
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Pred. No. 1.8e-18;
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RESULT 5
US-08-919-597-4
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             REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                    SOFTWARE: PatentIn Relicurrent APPLICATION DATA:
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                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 06-JUN-1995
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                                                      NAME: COruzzi, Laura A. REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                               OPERATING SYSTEM:
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                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                          FILING DATE
                                                                                                                                                                                     APPLICATION NUMBER:
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Langlois, Alphonse J.
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Lambert, Dennis M.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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Pred. No. 1.8e-18;
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: PC-D
SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                 TOPOLOGY: unknown MOLECULE TYPE: peptide
                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995 CLASSIFICATION: 424
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1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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Lambert, Dennis M.
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                      Laura A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , Stephen R.
COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING INF
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Pred. No. 1.8e-18;
Pred. No. 0;
                                                        Score 200; DB 3;
Pred. No. 1.8e-18;
); Mismatches 0;
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INFORMATION FOR SEQ ID NO:
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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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APPLICANT: Petteway, Stephen R.
APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF MEMBRANE
TITLE OF INVENTION: FUSION-ASSOCIATED EVENTS, INCLUDING EPSTEIN-BARR VIRUS
TITLE OF INVENTION: TRANSMISSION
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TOPOLOGY: un
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SOFTWARE: PatentIn Release #1.0, Version #1.30
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                                                                                                                            Matthews, Thomas J. Wild, Carl T.
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                                                                                          Lambert, Dennis M.
                                                                                                             Barney, Shawn O.
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METHODS FOR INHIBITION OF MEMBRANE
FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS
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US-08-554-616-4
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Best Local Similarity
Matches 36; Conserv
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                                                                                                                              ZIP: 10030
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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APPLICANT:
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TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
REGISTRATION NUMBER: 30,742
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CORRESPONDENCE ADDRESS:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/073,028
                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/0
FILING DATE: 06-NOV-1995
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                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 10036
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ZIP: 10036-2711
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(212) 869-9741/8864
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                                                                                                  PatentIn Release #1.0, Version #1.25
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                                                                                            TELEFAX: (212) 869-974
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/485,264A FILING DATE: 07-JUN-1995 CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION:
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LENGTH: 36 amino acids
                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
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TITLE OF INVENTION:
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 OLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
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                            STRANDEDNESS:
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10036-2711
                                              amino acids
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                                                                                                                                    (212) 790-9090
(212) 869-9741/8864
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Langlois, Alphonse J
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Pred. No. 1.8e-18;
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US-09-082-279B-1359
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CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 1358
LENGTH: 36
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 Best Local Similarity Matches 36; Conserv
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SEQ ID NO 1359
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Best Local
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                                     Query Match
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
                                                                                                                                                                                                              FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
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ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
                                                                                       OTHER INFORMATION: Core polypeptide
                                                                                                           FEATURE:
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nes 36; Conserv
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Merutka, Gene
Anwer, Mohmed
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Merutka, Gene
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   Conservative
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                100.0%; Score 200; DB 4; 100.0%; Pred. No. 1.8e-18;
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Pred. No. 1.8e-18;
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RESULT 14
US-09-315-304B-1358
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US-08-474-349A-4
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                                                        Patent No. 6348568
GENERAL INFORMATION:
                                                                                       Sequence 1358, Application US/09315304B
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APPLICANT: Barney, S. APPLICANT: Guthrie, K. APPLICANT: Merutka, G. APPLICANT: Anwer, M.
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MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: COTUZZÍ, LAUTA A.
REGISTRATION NÚMBER: 30,742
REFERENCE/DOCKET NÚMBER: 78
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION: NAME: Coruzzi, Laura A.
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: New York
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                                                                                                                                                                1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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1155 Avenue of the Americas
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Langlois, Alphonse J
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Lambert, Dennis M.
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                                                                                                                                                                                                                                                                                                               unknown
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Pred. No. 1
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1.8e-18;
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Search completed: May 16, Job time: 10.1928 secs

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US-09-315-304B-1359
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LENGTH: 36
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                                                                                                      Query Match
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Best Local :
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                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 09/082,279 PRIOR FILING DATE: 1998-05-20 NUMBER OF SEQ ID NOS: 1667
                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 7872-052
CURRENT APPLICATION.NUMBER: US/09/315,304B
CURRENT FILING DATE: 1999-05-20
                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Lambert, D.
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC
TITLE OF INVENTION: PROPERTIES
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TYPE: PRT .
ORGANISM: Artificial Sequence
                                                                                                                                                          OTHER INFORMATION: Core polypeptide
                                                                                                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                TYPE: PRT
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                1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF
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Minimum DB
Maximum DB
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Maximum Match 100%
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                         US-09-854-816-33
US-09-854-816-38
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	Sequence 84, Appl	1 0	s.	4	Sequence 41, Appl		100	Sequence 1, Appli	1,	Sequence 5, Appli	e 10,	Sequence 1, Appli	1,	16, 7	Sequence 46, Appl	44,	22,		71,	68,	42,	Sequence 44, Appl	49,	42,	31,	30	peducince o' white

RESULT 1 US-09-854-816-33 Sequence 33, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION: INFORMATION FOR SEQ ID NO: 33 COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION DATA:
ORACLE CONTROL OF THE CONT NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2 TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674 TELEFAX: 650/922-9881 APPLICATION NUMBER: 08/965, FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION: SEQUENCE CORRESPONDENCE ADDRESS: APPLICANT: Andrew C. STREET: 1 DNA Way
CITY: South San Francisco STATE: California COUNTRY: USA ADDRESSEE: OF SEQUENCES: CHARACTERISTICS INVENTION: J. Kevin Judice Robert S. McDowell J. Christopher Phelan Melissa A. Starovasnik Genentech, Inc. A. Wells Making Same Constrained Helical Peptides and Methods Braisted 0f

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RESULT 3
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US-09-854-816-50
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PATENT INFORMATION:
APPLICANT: Andrew C. Braisted
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Best Local Similarity
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TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
NAME: TOICChia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
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                                                 YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                                                                   l Similarity
32; Conser
                                                                                                                                                                                                                                       LENGTH: 233 amino acids TYPE: Amino Acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/965,056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE:
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J. Christopher Phelan
Melissa A. Starovasnik
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                                                                                                                                    92.5%;
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Pred. No. 1.6e-14;
3; Mismatches 1,
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Pred. No. 3.1e-16;
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US-09-854-816-41
Sequence 41, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 38:
SEQUENCE CHARACTERISTICS:
LENGTH: 267 amino acids
                                                                                                                                                                                                                                                                                                                                                                               168 YTGLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                                                                                                                                                                                                                                                                                                                                                                    1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E
REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS_MS-DOS

SOFTWARE: WinPatin (Genentech)

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: Linear SEQUENCE DESCRIPTION: SEQ ID NO: 38:
                                     NUMBER OF SEQUENCES: 11 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
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                                                                                                 TITLE OF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
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CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: Amino Acid
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                  ADDRESSEE:
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                                                                                                 INVENTION:
                                                                                                                                  J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
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Robert S. McDowell
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EE: Genentech,
1 DNA Way
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 185; DB 10;
Pred. No. 1.8e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Timothy E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 267;
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RESULT 5
US-09-854-816-43
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 41: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 88.4 hes 32; Conservative
                                                                                                                  MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown> PRIOR APPLICATION DATA:
                                                                                                                                                                                                                 ZIP: 94080
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/854,816
                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: P1005R2 TELECOMMUNICATION INFORMATION:
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                                                           APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                            CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                          COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: South San Francisco
STATE: California
                        APPLICATION NUMBER: 08/965,056
                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 268 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Melissa A.
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Robert S. McDowell
                                                                                                                                                                                                                                                                                                                 1 DNA Way
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Pred. No. 1.8e-14;
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US-09-854-816-110
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                                          US-09-854-816-110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 110, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 31; Conserv
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                                                                                                                                                        INFORMATION FOR SEQ ID NO: 110:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         169 YTGLIYSLIEESQNQQEKNEQDLLELDKWASLWNWF 204
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                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: P1005R2 TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                           SEQUENCE
                                                                                                                                    SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Andrew C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO: 43:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                               TYPE: Amino Acid
                                                                                                                                                                                                                                                  NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2
                                                       TOPOLOGY: Linear NCE DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: South San
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: Amino Acid
                                                                                                                  LENGTH: 46 amino acids
                                                                                                                                                                           TELEFAX: 650/952-9881
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TELEFAX: 650/952-9881
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    91.0%;
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                                                           SEQ ID NO: 110:
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Pred. No. 3.1e-14;
  Score 182;
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DB 10;
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Length 46;
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Matches

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RESULT 8
US-09-654-816-48
Sequence 48, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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; Sequence 13, Application US/09854816
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                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                Query Match
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Matches 32; Conservative
                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                11
                                                                                                                                                                                                                                 Local Similarity
les 32; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: P1005R2 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: California
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                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                LENGTH: 268 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 650/225-8674
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                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
   Robert S.
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               Kevin Judice
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                                                                                                                                                                                                                                               91.0%;
88.9%;
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McDowell
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                                                                                                                                                                                                                                               Score 182; DB 10;
Pred. No. 4.1e-14;
                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                Length 268;
                                                                                                                                                                                                                                   Indels
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Sequence 67, Application Upatent No. US200201514/3A1

GENERAL INFORMATION:
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Best Local Similarity
Matches 31; Conserv
                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                APPLICANT: Andrew C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS
                                              COUNTRY: USA
ZIP: 94080
                                                                                                               ADDRESSEE: Genent
                                                                                STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: Amino Acid
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                                                                                                                                                                                                                              J. Christo
Melissa A.
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James A. Wells
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INFORMATION FOR SEQ ID NO: 48: SEQUENCE CHARACTERISTICS: LENGTH: 269 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  169 YTGIIFNLIEEAQNQQEKNEQDLLELDKWAGLWNWF 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible operating System: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
                                                                                                                                                                                                                                                       TITLE OF INVENTION: Constrained Helical Peptides and Methods of Making Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: Linear SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
                                                                                                                                            CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09854816
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Robert S. McDowell
J. Christopher Phelan
                                                                                                                                                                                                                                                                                                            James A. Wells
                                                                                                                                                                                        Genentech,
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                                                                                                                                                                                                                                                                                                                                Starovasnik
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Pred. No. 4.1e-14;
4; Mismatches 1;
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PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>

FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown>

CURRENT APPLICATION DATA:

SOFTWARE: OPERATING

SYSTEM: PC-DOS/MS-DOS WinPatin (Genentech)

APPLICATION NUMBER:

US/09/854,816

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US-09-854-816-28
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INFORMATION FOR SEQ ID NO: 67:
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                                                                                                                                                                                                        ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPathn (Genentech)
                             APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
             TELECOMMUNICATION INFORMATION:
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NAME: TOTChia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                  CLASSIFICATION: <Unknown>
                                                                                                                                                                                APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 270 amino acids TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                         CITY: South San F:
STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            James A.
                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Christopher Phelan
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650/225-8674
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                                                                                                                                                                                                                                                                                                                                                                                            Francisco
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Pred. No. 4.1e-14;
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US-09-854-816-9
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                                                                                                                                        US-09-854-816-9
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Best Local Similarity 88.9
Matches 32; Conservative
                                                                                                     Query Match
                                                                     Matches
                                                                                       Best
                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 268 amino acids
TYPE: Amino Acid
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SEQUENCE CHARACTERISTICS:
LENGTH: 269 amino acids
TYPE: Amino Acid
   168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169 YTSLIYTLLEESQNQQEKNEQELLELDKWASLWNWF 204
                                                                                     Local Similarity
                1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                       TOPOLOGY: Linear SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Andrew C. Braisted
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YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                     31;
                                                                                                                                                                                                                                                                                                                              NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: California
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                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: P1005R2
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                                                                   Conservative
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Robert S. McDowell
J. Christopher Phelan
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                                                                              89.5%;
86.1%;
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                                                                 Score 179; DB 10;
Pred. No. 9.3e-14;
3; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 181; DB 10;
Pred. No. 5.4e-14;
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                                                                                                  Length 268;
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                                                                     Indels
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US-09-854-816-26
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Sequence 12, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                            RESULT 13
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GENERAL INFORMATION:
APPLICANT: Andrew C. Brainta
                                                                                                                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                 uery Match
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                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 268 amino acids
TYPE: Amino Acid
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
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TELEPHONE: 650/225-8674
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CORRESPONDENCE ADDRESS
              NUMBER OF SEQUENCES:
                                                     TITLE OF INVENTION:
                                                                                                                                                        APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
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Melissa A. Starovasnik
                                                                                    J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
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                                                                    Melissa A.
James A. We
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: 113
                 Making Same : 113
                                                  Constrained Helical Peptides and Methods of
                                                                    Wells
                                                                                                                                                                                                                                                                                                                                                                                 Score 179; DB 10;
Pred. No. 9.3e-14;
                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
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                                                                                                                                                                                                      SEQ ID NO 4
LENGTH: 619
                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4, Application US/09891609 Patent No. US20020127238A1
                                                                         Matches
                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/891,609
CURRENT FILING DATE: 2001-06-26
                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 4 SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/214,608
                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Stamatatos, Leondias
TITLE OF INVENTION: HIV-1 VACCINES AND SCREENING METHODS THEREFOR
                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 2000-06-27
                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 2570-1-002N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 12: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                                   ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                169 YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 204
574 YTNLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                 1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 269 amino acids
TYPE: Amino Acid
TOPOLOGY: Linear
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Pred. No. 9.3e-14;
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                                                                           Mismatches
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RESULT 15 US-09-891-609-2

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Minimum DB :
Maximum DB :
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
        Score
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Gapop 10.0 , Gapext 0.5
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193
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Description
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# ALIGNMENTS

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				RESULT 1 AAR98401 ID AAR XX AC AAR AC AAR XX DT 17- XX DE Pep
(UYDU-) UNIV DUKE. Barney SO, Bolognesi DP, Lambert DM, Langlois AJ; Matthews TJ, Petteway SR, Wild CT; WPI; 1996-309517/31.	ERI	W09619495-A1. 27-JUN-1996. 20-DEC-1995; 95WO-US16733.	Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.  Human immunodeficiency virus type 1.	IT 1 401 AAR98401 standard; peptide; 36 AA. AAR98401; 17-FEB-1997 (first entry) Peptide corresponding to residues 638-673 of HIV-1(MN) gp41.

193 193 193 193 193 193 193

100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0

36 36 36 36 36 36 36 36 36 36 36 36

AAG67042 AAU14014 AAB92247 AAB54788 AAY22819 ABG68290 AAW43068 AAR14903

Peptide correspond
DP-178-11ke peptide
HIV-1 9p41 peptide
DP178 homologue de
Virus related pept
HIV antiviral acti
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Envelope protein g HIV-1 gp120 protei HIV-1(MN) env prot

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                                                                                                                                                                                                                                 AAW17012-W17016 are DP-178 homologues that are useful in the treatment of HIV infection. DP-178 is a peptide corresponding to residues 638-673 of HIV type 1 glycoprotein 41 (gp41) transmembrane protein. DP-178 and its derivatives/homologues are used in combination with a therapeutic agent, e.g a reverse transcriptase, viral protease, with a therapeutic agent, e.g a reverse transcriptase, viral protease, with the combination with a therapeutic agent, e.g a reverse transcriptase, viral protease, with the combination of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Compsns. contg. DP-178 or DP-107 in combination with other therapeutic agent - useful for treatment of HIV infection inhibiting replication or transmission of HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        therapeutic agent - useful for treatmentinhibiting replication or transmission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DP-178-like peptide useful
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                                                                                                                  nucleoside inhibitor. The peptides work by or inhibiting transmission. They may also k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TRIM-) TRIMERIS INC
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replication; transmission
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                                                                                against HIV infection
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lambert DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-0481957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96WO-US09499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for treatment of HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  type 1 MN isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 193; DB 17;
Pred. No. 2.9e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV infection,
                                                                                                                               used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   glycoprotein 41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inhibition;
                                                                                                                                                                 viral replication
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       esp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or
P
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Sequence

36

AAU14014 ID AAU

AAU14014 standard;

peptide;

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AAU14014;

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RESULT 3
AAG67042
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XXX
                                                      Query Match
Best Local S
Matches 36
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required for normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV; virucide; heptad repeat region; transmembrane protein; gp41; HR1; HR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV-1 gp41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-JAN-2002
                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                       Disclosure;
                                                                                                                                                                                                                                                                                                                                            Heptad repeat region peptide analogs useful fusion, useful for treating HIV and Respirat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200164013-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAG67042;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAG67042 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-FEB-2000; 2000US-0515965
                                                                                                                                       the specification.
                                                                                                                                                                                                                                                                                                                                                                                                                                          (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          infection;
1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                       2001-514829/56
                                                      36; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          heptad; DP178.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide
                                                                                                             36 AA;
                                                                                                                                                                                                                                                                                                    Fig 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                 Delmedico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001WO-US03988
                                                                                                                                                                                                                                                                                                    587pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DP178 homologue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                 Erickson
                                                      Score 193; DB 22;
Pred. No. 2.9e-17;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 193; DB 18;
Pred. No. 2.9e-17;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA
                                                                                                                                                                                                                                                                                                                                             s useful for inhibiting virus/cells Respiratory Syncytial Virus
                                                                                                                                                                                                                                                                                                                                                                                                                 JB,
 36
                            36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36
                                                                                                                                                                                                                                                                                                                                                                                                                 Lambert DM,
                                                      Indels
                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                  Sista
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                                                                                    36;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                         Gaps
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RESULT 5
AAB92247
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                                                                                                                                                                                                                                                                                                                                                                                                                                        PAXR
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PF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 activity. The peptides of the invention (AAU12559-AAU14009) comprise DP178-like and DP107-like peptides. The DP178 peptide corresponds to amino acids 639-673 of the transmembrane protein gp41 from human immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide corresponds to amino acids 558-595 of gp41 from HIV-1LAI. The invention calso relates to a method of identifying compounds that inhibit the formation of or disrupts a DP107/DP178 complex. The method comprises detecting the formation of a DP107/DP178 complex, both in the presence or absence of a test compound, in a reaction mixture containing DP107 and DP178 peptides. The method is useful for identifying compounds, including small molecule compounds, which may themselves exhibit antifusogenic, antiviral or intracellular modulatory activity. The DP178-like/DP107-like peptides are useful to inhibit human and non-human retroviral, particularly HIV, transmission to uninfected cells. The
                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                            Query Match
Protection; endogenous therapeutic peptide; peptidase; conjugation; blood component; modification; succinimidyl; maleimido group; amino hydroxyl; thiol; hormone; growth factor; neurotransmitter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antiviral or intracellular modulatory activity, by detecting the formation of a DP107/DP178 complex -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anti-retroviral; DP178-like; DP107-like; transmembrane protein gp41; antifusogenic; antiviral; HIV transmission.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUL-2000; 2000WO-US35727
                                                                      Virus related peptide SEQ ID NO:1423.
                                                                                                                                         AAB92247;
                                                                                                                                                                         AAB92247 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to peptides which exhibit anti-retroviral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig 1; 259pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-442157/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jeffs P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200151673-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human immunodeficiency virus 1 isolate MN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DP178 homologue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-NOV-2001 (first entry)
                                                                                                                                                                                                                                                       1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                   isolate MN
                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lackey JW,
                                                                                                                                                                                                                                                                                                                                                                                                 36 AA;
                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0350841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    derived from HIV-1 isolate
                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Erickson JB,
                                                                                                                                                                         36
                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                          Score 193; DB 22;
Pred. No. 2 9e-17;
                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lawless MK,
                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Merutka
                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                              36;
                                                                                                                                                                                                                                                                                                                          0;
                     amino;
                                                                                                                                                                                                                                                                                                                          Gaps
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RESULT 6
AAB54788
Вþ
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention describes a modified therapeutic peptide (I) comprising a therapeutically active amino acid region (III) and a reactive group (II) (e.g. succinimidy] and maleimido groups) attached to a less therapeutically active amino acid region (IV), which covalently bonds with amino/hydroxyl/thiol groups on blood components to form a peptidase stabilised therapeutic peptide composed of 3-50 amino acids. (I) are useful for modifying therapeutic peptides e.g. hormones, growth factors and neurotransmitters, to protect them from peptidase activity in vivo for the treatment of various disorders. Endogenous therapeutic peptides are not suitable as drug candidates as they require frequent administration due to rapid degradation by peptidases in the body. Modifying and attaching therapeutic peptides to albumin prevents or reduces the action of peptidases to increase length of activity (half life) and specificity as bonding to large molecules decreases in the stable and interference with physicalorical processes.
                                                                  Long lasting fusion peptide inhibitor; viral infection; antiviral; antifusogenic; mobile blood component; measles virus; MeV; SIV; simian immunodeficiency virus; human parainfluenza virus; HPIV; RSV;
                                                                                                                                                                05-MAR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               intracellular uptake and interference with physiological processes AAB90829 to AAB92441 represent peptides which can be used in the exemplification of the present invention.
                                                                                                                                HIV antiviral activity exhibiting peptide SEQ ID
                                                                                                                                                                                                                            AAB54788 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modifying and attaching therapeutic peptides peptidase degradation, useful for increasing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bridon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-MAY-1999;
10-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-MAY-2000; 2000WO-US13576
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200069900-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CONJ-) CONJUCHEM INC
                                                                                                                                                                                                                                                                                                        1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                       1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                       respiratory syncytial virus; human immunodeficiency virus; HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DP,
                                                                                                                                                                                                                                                                                                                                                                       36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                   36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ezrin AM,
                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0134406.
99US-0153406.
99US-0159783.
                                                                                                                                                                                                                            Peptide;
                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             733pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Milner
                                                                                                                                                                                                                               36
                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                   Score 193; DB 22;
Pred. No. 2.9e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ρG,
                                                                                                                                                                                                                             ξ
                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Holmes
                                                                                                                                                                                                                                                                                                          36
                                                                                                                                                                                                                                                                                                                                     36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         to albumin prevents length of in vivo activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Thibaudeau
                                                                                                                                   NO:5
                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                    36;
                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                    Gaps
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Human immunodeficiency virus type 1.

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RESULT 7
AAY22819
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ពិតពិតពិតពិតពិតពិតពិតពិតពិតពិតពិតពិត
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RSV, HPIV, MeV, and SIV. (I) may be administered prophylactically to previously uninfected individuals. This is useful in cases where an individual has been subjected to a high risk of exposure to a virus. By bonding of long-lived components of the blood, such as immunoglobin, serum albumin, red blood cells and platelets the activity is extended for days to weeks. This is due to improved stability in vivo and a reduced susceptibility to peptidase or protease degradation. This minimises the need for more frequent, or even continual, administration of the peptides. AAB54784 to AAB55431 represent peptides used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    comprising a peptide that exhibits anti-viral activity and a reactive group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds. (1) has anti-fusogenic activities. (1) inhibits viral infection of cells by inhibiting cell-cell fusion or free virus infection or to reduce the level of membrane fusion events between two or more entities, e.g., virus-cell or cell-cell, relative to the level of membrane fusion that occurs in the absence of the peptide. (1) is useful in the treatment of patients who are suffering from viral infection, e.g. HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A modified peptide and a reactive group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds useful for treatment of viral infections, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 6; Page 174; 211pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bridon DP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-MAY-2000;
                                                                                                                   HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement;
                                                                                                                                                                                                                                                                   AAY22819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CONJ-) CONJUCHEM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-NOV-2000
14-MAY-1998
                                                                   Human immunodeficiency virus
                                                                                                                                                                                                SEQ ID NO. 15 from WO9820036.
                                                                                                                                                                                                                                 19-AUG-1999
                                                                                                                                                                                                                                                                                                      AAY22819 standard; Protein;
                                                                                                      immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                              1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                               1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-007496/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ch 100.0%;
1 Similarity 100.0%;
36; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dufresne RP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US13651
                                                                                                                                                                                                                                 (first entry)
                                                                                                      purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0134406
99US-0153406
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                                                                                                                                                                                                                                                                                                        267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 193; DB 22; Pred. No. 2.9e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a modified anti-viral peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36;
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RESULT 8
ABG68290
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention of infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; Page 155; 279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1998-286866/25
                                                                                                       HIV; glycoprotein; gp41; antigen; helical conformation;
virus-induced membrane fusion; acquired immunodeficiency syndrome; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Braisted A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-NOV-1997;
                                                   Human immunodeficiency virus type 1 clade
                                                                                      viral envelope protein;
                                                                                                                                                             Envelope protein
                                                                                                                                                                                                07-OCT-2002
                                                                                                                                                                                                                                   ABG68290;
                                                                                                                                                                                                                                                                   ABG68290 standard; Protein; 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       forms of
                                                                                                                                                                                                                                                                                                                                                          167 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                           1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "floppy" peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    267 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0876698
96US-0743698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US20069
                                                                                                                                                           gp41 from
                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                      vaccine; virucide; anti-HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             McDowell RS,
                                                                                                                                                             HIV clade B strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      or proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 193; DB 19;
Pred. No. 2.7e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Phelan JC,
                                                                                                                                                                                                                                                                                                                                                           202
                                                                                                                                                                                                                                                                                                                                                                                             36
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                                                                                                                                                                #9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     267;
                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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07-AUG-2001

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to cyclic peptides (A) with a constrained helical conformation, derived from gp41 (glycoprotein 41, a viral envelope protein) protein of human immunodeficiency virus (HIV). The cyclic cyclic peptides have formulas given in the specification part of which are cyclic cyclic from a consensus sequence of gp41 derived from HIV clades A, B, C, D, E or O. The peptides are used to cause induction of a specific cyclimune response, resulting in antibodies that prevent virus induced cyclic membrane fusion. The peptides are used to treat subjects with, or at risk cyclic from the cition, either as antifusion/anti-infection agents or, CC preferably where associated with a carrier, as an immunogen (including as cyclic) to raise antibodies. The antibodies may be used for diagnosis or cyclic frome, AIDS), e.g. prevention of mother-to-child transmission or in cases of health care accidents. The peptides can be based on specific HIV strains, e.g. breakthrough isolates of HIV that have developed during cyclic cyclic from trials, so a combination of them should cover a wide range of cyclection. The present sequence is gp41 protein from a particular cyclic cyclic from a consensus sequence of gp41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
 20-AUG-1991;
16-AUG-1993;
09-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUN-1997;
06-NOV-1996;
16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New cyclic peptides from human immune deficiency virus gp41, treatment or prevention of HIV infection, are constrained to alpha-helical conformation \,\cdot\,
                                                                                                                                                                                                                               HIV-1 gp120 protein fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-487624/52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Braisted AC, Wells JA;
                                                              11-MAY-1995;
                                                                                           09-DEC-1997
                                                                                                                                                     Human immunodeficiency virus type
                                                                                                                                                                                  gp120 protein; purification; fractionation; ion
binding affinity; CD4; hydrophobic interaction;
                                                                                                                                                                                                                                                               11-SEP-1998
                                                                                                                                                                                                                                                                                            AAW43068;
                                                                                                                                                                                                                                                                                                                          AAW43068 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                      167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                 1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                      YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              267 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Column 151-152; 175pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                             (first entry)
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96US-0743698.
97US-0876698.
91US-0684963.
93US-0109002.
94US-0240073.
                                                             95US-0439286
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                                                                                                                                                                                                                                                                                                                         peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             McDowell RS,
                                                                                                                                                                                                                                                                                                                          854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                  fractionation; ion exchange; chromatography;
phobic interaction; size exclusion; vaccine.
                                                                                                                                                                                                                                from isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 193;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                          Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 23;
2.7e-16;
2s 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              267;
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have
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PX PX OS
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AAR14903
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                                                                                                                                                                                                                                                                                           XX EX EX E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunodeficiency virus type I (HIV-1) isolates. These proteins are used CC in a novel method for purifying HIV 9p120 so as to provide a purified CC gp120 glycopeptide having protein/protein binding properties CC substantially identical to natural viral HIV 9p120. The method involves CC fractionating a crude gp120 preparation containing full-length, CC glycosylated 9p120 using ion exchange chromatography so as to provide a CC first collection of fractions. A a fraction from the first collection is cleeted that exhibits specific binding affinity for CD4 peptide, CC selected that exhibits specific binding affinity for CD4 peptide. CC thereby producing a first fractionated material. The first fractionated constraint is fractionated by hydrophobic interaction chromatography so as to provide a second collection of fractions from which a second collection is fractionated by size exclusion CC chromatography so as to provide a third collection of fractions constraints of fractions as to provide a third collection of fractions constraints and in vaccines constraints of the purified gp120. The purified gp120 can be used for antibody
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
           WPI; 1991-346752/47.
N-PSDB; AAQ14751.
                                                                                                                                                                                                                                                                                                                        HIV-1(MN)
                                                                                                                                                                                                                                                                                                                                                    17-DEC-2001
05-FEB-1992
                                                                                                                                                  17-OCT-1990;
                                                                                                                                                                                                                                            Human immunodeficiency virus-1 (MN)
                                                                                                                                                                                                                                                                         envelope protein.
                                                                                                                                                                                                                                                                                                                                                                                                     AAR14903;
                                                                                                                                                                                                                                                                                                                                                                                                                                AAR14903 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Purification of HIV gp120 - using chromatographic methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1998-041353/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-MAY-1995;
                                                         Reitz M;
                                                                                                                                                                                15-OCT-1991.
                                                                                                                                                                                                               USN7599491-N.
                                                                                                                                                                                                                                                                                       human immunodeficiency virus; United
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 production and in vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW43066-W43080 are fragments of the gpl20
                                                                                     (USSH ) NAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            637 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                        env
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    854 AA;
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                                                                                        INST OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                    (updated)
(first entry)
                                                                                                                                                                                                                                                                                                                      protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scandella
                                                                                                                     90US-0599491
                                                                                                                                                  90US-0183830
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2A-W; 53pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.
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                                                                                                                                                                                                                                                                                                                                                                                                                                  856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 193; DB 19;
Pred. No. 9.9e-16;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                ΑÃ
                                                                                                                                                                                                                                                                                           States; MN isolate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein from different human
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RESULT 11
AAR79173
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The permuted circular unintegrated viral DNA representing the complete HIV-1(MN) genome was cloned into the EcoRI site of lambda gtWES.lambda B DNA from total DNA of H9 cells producing HIV-1 (MN). This clone was designated lambda MN-PH1; it was subcloned in Ml3mpl8 and Ml3mpl9 and the DNA sequence of the entire clone was obtained the amino acid sequence of the env protein was deduced from it. (Note: Revised entry submitted to correct the patent number format of US Government-owned NTIS applications to prevent clashes with ongoing US granted patent numbers. For further information please visit the Derwent
Peptide analogues useful as therapeutic agents, diagnosis of disease - maintain conformation o e.g. HIV gp120 peptide.
                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIV virus-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV virus-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR79173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR79173 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US HIV-1 isolates MN-ST1 and BA-L, ENV protein and DNA useful in therapeutics, vaccines and diagnostic tests % \left( 1\right) =\left\{ 1\right\} 
                                                                                                                                                                                        19-JAN-1994;
                                                                                                                                                                                                                       19-JAN-1995;
                                                                                                                                                                                                                                                        27-JUL-1995.
                                                                                                                                                                                                                                                                                       WO9520162-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               web site.at www.derwent.com/dwpi/updates/ntis_us.html.)
                                                                                                      Harris-Kelson TA,
                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                     1995-269543/35
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                                                                                                                                    SEC DEPT HEALTH.
DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              856 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gp120; therapeutic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                        94US-0184330
                                                                                                                                                                                                                       95WO-US00760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "HIV-1 isolate MN gp120 301..400
                                                                                                                                                                                                                                                                                                                                        824..830
                                                                                                                                                                                                                                                                                                                                                                         801..856
                                                                                                                                                                                                                                                                                                                                                                                                        419..436
                                                                                                                                                                                                                                                                                                                                                                                                                                           401..800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                      note-
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                                                                                                                                                                                                                                                                                                                                                                                                                        /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61pp;
                                                                                                      Robert-Guroff M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MN gp120 sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
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                                                                                                                                                                                                                                                                                                                                                                                       "CD4
                                                                                                                                                                                                                                                                                                                        "MHC
                                                                                                                                                                                                                                                                                                                                                                                                                        "CD4 binding region"
                                                                                                                                                                                                                                                                                                                                                      "MHC II homology region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         "V3 loop"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            856
                                                                                                                                                                                                                                                                                                                   II homology region consensus
                                                                                                                                                                                                                                                                                                                                                                                     binding region consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 193; DB 12;
Pred. No. 9.9e-16;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunogen; diagnostic; peptomer
                                                                                                      Robey FA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36
                    of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence"
                                  immunogens,
                    native
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                       sequence"
                    protein,
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                                                                                                                                                                                                                                                                                                                        sequence"
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RESULT 12
AAW11579
ID AAW11
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Best Local S
Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide analogues of HIV virus antigen contain a plurality of peptide monomers, each comprising the gp120 CD4 binding region consensus sequence (amino acids 419-436) (see AAR79172). The synthetic peptomers are useful as therapeutic agents, immunogens in vaccine compositions or for the diagnosts of disease. Since the analogues maintain the conformation of the native proteins from which they are derived (the consensus sequence), they are useful against infection by various HIV-1 and HIV-2 isolates (see
                                                                                    The permuted circular unintegrated viral DNA representing the complete HIV-1(MN) genome was cloned into the EcoRI site of lambda gtWES.lambda B DNA from total DNA of H9 cells producing HIV-1(MN) isolate. The clone was designated lambda MN-PHI. The present sequence was deduced from the env gene region of the MN-PHI genome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                     Sequence
                                                                                                                                                                                                                              New isolated envelope protein of HIV-1 strain BA-L and recombinant equivalents - useful as immunogens for vaccines and antibody prodn., typical of US clinical isolates
                                                                                                                                                                                                                                                                                                    WPI; 1997-011206/01.
N-PSDB; AAT58549.
                                                                                                                                                                                                                                                                                                                                                                                                                                              15-FEB-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-OCT-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-1997
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                                                                                                                                                                                             Example;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-OCT-1990;
25-FEB-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5576000-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Acquired
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human Immunodeficiency Virus-1
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                                                                                                                                                                                                                                                                                                                                                       Popovic M,
                                                                                                                                                                                                                                                                                                                                                                          Franchini
                                                                                                                                                                                                                                                                                                                                                                                                       (USSH ) US DEPT HEALTH & HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              639
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les 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene; vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                             Fig 3; 86pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immune deficiency syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                      G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    856 AA;
                                                     856 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                       Reitz MS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                          Gallo RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                          90US-0599491.
93US-0022835.
95US-0388809.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90US-0599491.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein;
 100.0%;
                                                                                                                                                                                                                                                                                                                                                                          Gartner S,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 193; DB 16;
Pred. No. 9.9e-16;
   Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                             SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               strain MN-PH1 envelope protein
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 193;
No. 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (strain MN-PH1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AIDS; envelope protein;
                                                                                                                                                                                                                                                                                                                                                                        Lori FC,
   9.9e-16;
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                  Length 856
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                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                         Matches
                                                                                                                                                        This sequence represents the Human Immunodeficiency Virus Type I (HIV-I) isolate MN envelope protein gp120. This protein is used in a novel method to produce and analyse peptides oligomers, "peptomers", consisting of several peptide monomers arranged head to tail, each monomer comprising a sequence from a CD4-binding region of HIV gp120. Such peptides are useful as assay reagents for detecting anti-HIV antibodies in biological samples, e.g. blood samples, or as a therapeutic agent for inhibiting infection of T cells by HIV and as an immunogenic agent for antibody production e.g. in vaccines. They are preferably synthetically produced and thus are consistent in the fire course and the second services.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Envelope protein; gp120; peptomer; peptides oligomer; dete CD4-binding region; anti-HIV antibody; therapeutic; infect inhibition; T cell; immunogenic agent; antibody; vaccine;
                                                                                        Sequence
                                                                                                                      produced and thus are consistent in their sequence and structure. Most HIV vaccines and detection peptides used currently rely on fragments of inactivated live viruses and thus may not contain the correct epitopes
                                                                                                                                                                                                                                                                                 Disclosure; Fig 1; 25pp;
                                                                                                                                                                                                                                                                                                         therapeutic
                                                                                                                                                                                                                                                                                                                  HIV gp120 peptide oligomers -
                                                                                                                                                                                                                                                                                                                                                                   Harris-Kelson TA,
                                                                                                                                                                                                                                                                                                                                                                                                                   19-JAN-1995;
19-JAN-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV-1 isolate MN envelope protein gp120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW58805 standard; protein;
                                                                                                                to elicit an immune
                                                                                                                                                                                                                                                                                                                                                                                           (USSH ) US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JAN-1995;
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                                                    Local Similarity
  1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36;
                                                                                        856 AA;
                                       100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                         agents
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94US-0184330
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         801..855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               401..800
/label= CD4_binding_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "region with MHC II homology"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= V3 loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                   Robert-Guroff M,
                                                                                                              response.
                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      856
                                        0;
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                                    Score 193; DB 17, Pred. No. 9.9e-16;
                                                                                                                                                                                                                                                                                                                   useful as diagnostic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                   Robey
                36
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                                                             Length
                                        Indels
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                                                                                                                                                                                                                                                                                                                   immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     detection;
                                                               856;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                epitope
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                                     Gaps
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                                                                       RESULT 15
AAR94622
ID AAR94
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AAW88111
   DE XX
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PR
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                                                                                                                                                                                   Matches
                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-FEB-1993;
15-FEB-1995;
14-MAY-1996;
HIV-1 gp160-NY5 p55 protein fusion
                          29-AUG-1996
                                                  AAR94622;
                                                                         AAR94622 standard;
                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Franchini G,
Popovic M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAY-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MN-PH1 clone;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW88111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-152779/13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-FEB-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Predicted amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-OCT-1990;
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                                                                                                                                                                                    36;
                                                                                                                                                                                                                                 856 AA;
                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reitz MS;
                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gallo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RC,
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The present sequence represents the predicted amino acid sequence of the MN-PHI clone envelope (env) protein MN-PHI is a Human immunodeficiency virus type 1 (HIV-1) clone. The specification also describes the env and rev coding sequences of the HIV-1 strain BA-L (ATCC 40890). BA-L is more typical of United States isolates of HIV-1 than previously known strains. Recombinant, complete env protein of the BA-L strain is used as a vaccine component and for immunotherapy of existing HIV infections, to detect HIV-specific antibodies, e.g. in donated blood, and as an immunogen to raise specific antibodies, for HIV-1 diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW88111 standard; Protein; 856
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA encoding env protein of the human immune deficiency virus isolate BA-L - useful for producing protein for use in vaccines,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (USSH ) US DEPT HEALTH & HUMAN SERVICES
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immunotherapy; HIV infection; immunogen; HIV-1 diagnosis; env; ds.
                                                                                                                                                         639 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 674
                                                                                                                                                                                                                   1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
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93US-0022835.
95US-0388809.
96US-0647714.
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Protein; 1188 AA
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Pred. No. 9.9e-16;
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                                                                    Query Match 100.0%; Score 193; DB 17; Best Local Similarity 100.0%; Pred. No. 1.4e-15; Matches 36; Conservative 0; Mismatches 0;
                                                                                                                                                                         plasmid A9760 contains a gene fusion (AAT15143) coding for a fusion protein (AAR94622) between HIV-1 gp160 and p55 proteins. The gene fusion was obtd. by cloning the gp160 coding p55 proteins into pUC19, cloning the gp55 coding sequence into Novablue TA PCR vector, ligating the p55 and gp160 sequences, and cloning the construct into the baculovirus expression vector MGS12, giving A9760, for expression in Spodoptera frugiperda cells. The fusion protein is useful as an immunogen in AIDS vaccines (e.g. to prevent mother to baby transfer of HIV) or for diagnostic detection of HIV antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV-1; gp160; p55; immunogen; vaccine; AIDS; baculovirus; vector.
                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                      Isolated nucleic acid encoding HIV gpl20-gag fusion protein - useful as immunogen in vaccines, for detecting antibodies and treating HIV infections etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1996-020357/02.
N-PSDB; AAT15143.
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Volvovitz F;
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154..191
/label= V2
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/label= V4
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/note= "61k signal peptide"
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17..152
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45..875
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Search completed: May 16, 2003, 11:12:02 Job time: 32.4578 secs

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envelope protein gp120/gp41 - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 28 C;Date: 20-Feb-1995 #sequence\_revision 20-Feb-1995 #text\_change 01-Dec-2000 C;Accession: S21998; S70425

A; Molecule type: DNA A; Residues: 1-358 <STE1> A; Cross-references: EMBL:x61359; NID:g60182; PIDN:CAA43630.1; PID:g60183 A; Cross-references: EMBL:x61359; NID:g60182; PIDN:CAA43630.1; PID:g60183 R; Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59; 1992 A; Title: Distinct populations of human immunodeficiency virus type 1 in blood A; Reference number: S70417; MUID:92144209; PMID:1736940

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S70425

A;Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid A;Reference number: S21990 A;Accession: S21998

R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991

Hacke, W.

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Qy 1 YTSL	Query Match Best Local Similarity Matches 36; Conser	RESULT 1  VCLJMN env polyprotein precursor - human i N;Alternate names: coat polyprotein C;Species: human immunodeficiency v A;Note: host Homo sapiens (man) C;Date: 31-Dec-1990 #sequence_revis C;Accession: A28922 R;Gurgo, C.; Guo, H.G.; Franchini, Virology 164, 531-536, 1988 A;Title: Envelope sequences of two A;Reference number: A28922; MUID:88 A;Accession: A28922 A;Molecule type: DNA A;Residues: 1-859 <gur> C;Genetics: A;Gene: env C;Superfamily: type E retrovirus en C;Keywords: capsid protein; coat pr F;1-29/Domain: signal sequence #sta F;30-859/Product: env polyprotein # F;87,129,135,140,141,146,161,165,19</gur>		30 161 31 163 32 159 34 157 35 159 36 153 37 1153 38 153 39 134 40 129 41 86 42 86 86 86
IYSLLEKSQT	imilarity ; Conserva	protein precursor - human immun ate names: coat polyprotein s: human immunodeficiency virus host Homo sapiens (man) 31-Dec-1990 #sequence_revision ion: A28922 C.; Guo. H.G.; Franchini, G.; 164, 531-536, 1988 Envelope sequences of two new nce number: A28922; MUID:882195 ion: A28922 le type: DNA es: 1-859 <gur> cs: env envelope E retrovirus env podds: capsid protein; coat protein coat protein coat protein somain: signal sequence #status /Product: env polyprotein #status, 135,140,141,146,161,165,191,20</gur>		4 4 4 4 6 6 9 4 1 1 3 3 8 8 3 4 4 4 4 5 6 9 4 1 3 3 8 3 4 4 4 4 6 6 9 4 1 3 3 8 3 4 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
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YTSLTYSLLEKSOTOQEKNEQELLELDKWASLWNWF 36	Score 193; DB 1; L; Pred. No. 1.1e-15; 0; Mismatches 0;	irus type 1, HIV-1 ion 31-Dec-1990 #text ion 31-Dec-1990 #text G.; Aldovini, A.; Col new United States HIV 219542; PMID:3369091 v polyprotein otein; glycoprotein; tus predicted <sig> status predicted <epp 1,202,246,267,281,294<="" td=""><td>ALIGNMENTS</td><td>VCLJKX VCLJKB JU0266 JT0954 B41621 VCLJH4 VCLJSI A44963 S21990 S41990 S41997 B41565 VCLJG5 VCLJG5 S3068 VCLJG5</td></epp></sig>	ALIGNMENTS	VCLJKX VCLJKB JU0266 JT0954 B41621 VCLJH4 VCLJSI A44963 S21990 S41990 S41997 B41565 VCLJG5 VCLJG5 S3068 VCLJG5
	Length 859; Indels 0; Gaps 0;	<pre>virus type 1 (isolate MN) 1  #text_change 16-Feb-1997 ; Collalti, E.; Farrell, K.; Wong-ss HIV-1 isolates. 9091  sein; polyprotein; transmembrane praics (<epp> 1 <epp> 1 <epp> 1 <epp< 1="" 2="" 3="" 4="" 5="" 6="" 7="" 8="" 9="" <ep="" <epp="">9 <epp 9="" <ep="" <epp="">9 <ep>9 <epp 9="" <ep="" <epp="">9 <epp 9="" <ep="">9 <epp 9="" <ep="" <epp="">9 <epp 9="" <ep="">9 <ep>9 <ep>9 <ep>9 <ep>9 <epp 9="" <ep="">9 <epp 9="" <ep="">9 <ep>9 /ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></ep></epp></epp></ep></ep></ep></ep></epp></epp></epp></epp></epp></epp></epp></epp></epp></epp></epp></epp></epp></epp></epp></ep></epp></epp></epp></epp></epp></epp></epp<></epp></epp></epp></pre>		env polyprotein prenv polyprotein prenvelope polyprote envelope polyprote envelope polyprotein prenv polyprotein prenv polyprotein prenv polyprotein prenvelope protein pag polyprotein envelope protein envelope protein envelope protein env polyprotein envelope protein envelope envelope envelope protein envelope protein envelope protein envelope protein envelope protein envelope e

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A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-222, X', 224-358 <STE2>
A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; PID:g60183
C;Superfamily: type E retrovirus env polyprotein
                                               C; Keywords:
F; 1-29/Domai
                                                                                                                                                                                                                                             R:Starcich, B.R.; Hahn, B.H.; Shaw, G.M.; McNeely, P.D.; Modrow, Cell 45, 637-648, 1986
A;Title: Identification and characterization of conserved and va. A;Reference number: A24774; MUID:86218077; PMID:2423250
    F;502-847/Product:
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A; Residues: 1-856 <STA>
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env polyprotein precursor - human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Superfamily: type E retrovirus env polyprotein glycoprotein; immu C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immu F;1-251/Product: coat protein gp120 (fragment) #status predicted *F;252-443/Product: coat protein gp41 (fragment) #status predicted F;424-443/Domain: transmembrane #status predicted <TMN> F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,36
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                                                                                                                                                            A;Cross-references: GB:K03455;
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A;Title: Evolution of human immunodeficiency virus type 1 nucleotide sequence diversity
A;Reference number: A41621; MUID:92107924; PMID:1763038
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A;Residues: 1-443 <BUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R; Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguyen, P.N.; Gibbs, R.A.
Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references:
superfamily: type E retrovirus env polyprotein; ;

Keywords: coat protein; glycoprotein; polyprotein; t;

Keywords: signal sequence #status predicted <SIG>

;30-501/Product: coat protein gp120 *status predicted

;502-847/Product: coat protein gp41 *status predicted
                                                                                        Superfamily: type E retrovirus env
                                                                                                                                       Genetics
                                                                                                                                                                                                                                                                                                                                                   Contains: coat protein gp120; coat protein gp41; Species: human immunodeficiency virus type 1, HT; Date: 30-Sep-1988 #sequence_revision 30-Sep-1988
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Best Local
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bte: host Homo sapiens (man)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF 413
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
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88.9%;
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Pred. No. 2.2e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 179; DB 2;
Pred. No. 2.8e-14;
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                                                                   transmembrane
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      N; Alternate
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                        polyprotein
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A;Cross-references: EMBL:M22639; NID:g329377; PII C;Superfamily: type E retrovirus env polyprotein C;Keywords: polyprotein
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C;Superfamily: type E retrovirus env polyprotein
C;Keywords: capsid protein; coat protein; glycop
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                                                                                                                                                                                                                                                                                                       submitted to the EMBL Data A; Reference number: $54377 A; Accession: $54384
                                                                                                                                                                                                                                                                                                                                                                                              envelope polyprotein - human immunodeficiency virus type
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 15-Jul-1995 #sequence_revision 01-Sep-1995 #text
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A; Residues: 1-861 <GUR>
C; Genetics:
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C; Date: 31-Dec-1990 #sequence_revision
C; Accession: B28922
C; Accession: B28922
RESULT
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32; Conser
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531-536, 1988
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                                                                                                                                              Score 178; DB 2; Pred. No. 7.8e-14;
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Pred. No. 5.9e-14
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precursor -

human immunodeficiency

virus

2r-6

polyprotein

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C; Species: hu
C; Date: 30-Se
C; Accession:
                                                   A; Molecule type: DNA
A; Residues: 1-854 <OBR>
C; Superfamily: +***-
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A;Title: Molecular characterization of human
A;Title: Molecular characterization of human
A;Title: Molecular characterization of human
                                                                                                                                                                                                                              env protein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
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                                                                                                                       A; Title: HIV-1 tropism for A; Reference number: S13288; A; Accession: S13288
                                                                                                                                                                                                C; Accession: S13288
R; O'Brien, W.A.; Koyanagi,
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C;Superfamily: type E retrovirus
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A; Residues: 1-851 <CAR>
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A; Residues: 1-855 <SRI>
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                                                                                                          A;Status:
                                                                                                                                                                                Nature 348, 69-73, 1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: S33985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:K03458; GB:M16322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;20-855/Product: env polyprotein #status predicted <MAT>;20-500/Product: exterior membrane glycoprotein #status predicted <EXT>;501-855/Product: transmembrane glycoprotein #status predicted <TMM>-87,129,140,145,154,158,186,189,199,236,243,264,278,291,297,333,340,355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Species: human immunodeficiency virus Zr-6;Date: 30-Sep-1987 #text_change 16-Jul-1999;Date: 30-Sep-1987 #sequence_revision 30-Sep-1987 #text_change 16-Jul-1999;Accession: D26192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Keywords: AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Superfamily: type E retrovirus env polyprotein Keywords: AIDS; capsid protein; coat protein; glycoprotein PolyDomain: signal sequence #status predicted <SIG>20-855/Product: env polyprotein #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                           tches
                                                                                                                                                                                                                                                                                                                                                               633 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
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                                                                                                        preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YTGLIYRLIEESQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      preliminary
Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Α.;
                                                   type E retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anand,
                                                                                                                                        for mononuclear phagocytes can be 3288; MUID:91043044; PMID:2172833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R.; York, D.; Ranganathan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92.2%;
88.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         91.7%;
88.9%;
91
88
                                                                                                                                                                                              Y.; Namazie,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                env
                                                   env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NID: g60192; PIDN: CAA77628.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 177;
Pred. No. 1
Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 7.8
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 178;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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1 19-Mar-1997 #tex
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177;
                                                                                                                                                                                                A.; Zhao,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NID:g329398; PIDN:AAA45380.1; PID:g329403
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; DB 2;
1e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1e-13;
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2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
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                                                                                                                                                                                                J.Q.; Diagne, A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 855;
               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 851;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                             determined
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PID:g60199
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-Aug-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                Zack, J
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                                                                                                                                                          gp120
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           Matches
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C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immun
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-516/Product: exterior membrane glycoprotein #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Complete nucleotide sequence of the AIDS virus, A;Reference number: A93353; MUID:85111123; PMID:2578615 A;Accession: A03973
                                                                 F;517-861/Product: transmembrane glycoprotein #status predicted <TMM>F;88,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,F;616,621,630,642,679,755,821/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                         A; Gene: env
                                                                                                                                                                                                            C; Genetics:
                                                                                                                                                                                                                          A; Cross-references: GB:K02013;
                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-861 <W
                                                                                                                                                                                                                                                                             A; Title: Nucleotide sequence A; Reference number: A90866; PA; Accession: A03975
                                                                                                                                                                                                                                                                                                                              R; Wain-Hobson, S.;
Cell 40, 9-17, 1985
                                                                                                                                                                                                                                                                                                                                                               C; Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                      A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                                  C; Species: human immunodeficiency virus type 1, HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: env
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Cross-references: GB:M15654; GB:K02008; GB:K02009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Residues: 1-856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nberger, J.A.; Papas, T.S
Nature 313, 277-284, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R; Ratner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N; Alternate names:
                                                                                                                                                                                                                                                                                                                                                                                                                                        N; Alternate names:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VCLJLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Species: human immunodeficiency virus type 1, HIV-1
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                  Best Local Similarity
                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                     polyprotein precursor - human immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            638 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   636
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                                                                                                                                                                                                                                                                                                                                                                                                    host Homo sapiens (man)
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L.; Haseltine, W.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             precursor -
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                               Sonigo,
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88.9%;
                91.7%;
88.9%;
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                                                                                                                                                                                                                                                                                              mUID:85099333;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human immunodeficiency virus
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                                                                                                                                                                                                                        NID: g326417; PIDN: AAB59751.1;
                                                                                                                                                                                                                                                                                                                                               Danos,
ω,.
              Score 177; DB 1
Pred. No. 1e-13;
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Mismatches
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                                                                                                                                                                                                                                                                                                                  virus,
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                                                                                                                                                                                                                                                                                                                                                 Cole,
                                DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                 s.;
                                                                                                                                                   glycoprotein; immunodeficiency; polyp
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1;
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                             Length 861
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Indels
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                                                                                                                                                                                                                          PID: g326424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (isolate
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                                                                                                                      <EXT>
Gaps
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A; Note:
C; Superf
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A; Residues: 1-357 <ST2>
A; Cross-references: EMBL.X61356; NID:g60181; PIDN:CAA43624.1;
A; Experimental source: patient 27L
A; Note: submitted to the EMBL Data Library, July 1991
A; Note: submitted to the EMBL Data Library, July 1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: human immunodeficiency virus type i, hiv-i
A;Variety: isolate 27B
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
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  N; Alternate names: coat protein
                                              env polyprotein precursor - human immunodeficiency virus
                                                                       VCLJND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 27L) (Species; human immunodeficiency virus type 1, HIV-1 C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999 C;Accession: S70422; S21996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-140,'X',142-312,'X',314-357
A; Cross-references: EMBL: X61355; NID: g6017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            coss-references: EMBL:X61355; NID:g60179; PIDN:CAA43622.1; PID:g60180 euler, H.; Storch-Hagenlocher, B.; Wildemann, B. ArdS Res. Hum. Retroviruses 8, 53-59, 192.
A;Title: Distinct populations of human immunodeficiency virus type 1 in blood A;Reference number: S70417; MUID:92144209; PMID:1736940
A;Accession: S70421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   envelope protein gp120/gp41 - human immunodeficiency virus type C; Species: human immunodeficiency virus type 1, HIV-1
                                                                                            RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Superfamily: type E retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-357 <STE1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Accession: S21994; S70421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.

Storch-Hagenlocher, B.; Wildemann, B.

Lie: Distinct populations of human immunodeficiency virus deference number: S70417; MUID:92144209; PMID:1736940

Recession: S70422
                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Status:
                                                                                                                                                                                                                                                   Matches
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                                                                                                                                                               139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                           YTGLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YTTLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 174
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                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                         type E retrovirus
                                                                                                                                                                                                                                                   Conservative
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coat polyprotein
rotein gpl20; coa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                91.2%;
86.1%;
                                                                                                                                                                                                                                                                     90.7%;
86.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; NID:g60179
                                                                                                                                                                                                                                            Score 176; L
                                                                                                                                                                                                                                                                                                                                         env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 env polyprotein
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; Mismatches
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                                                                                                                                                                                                                                                                                        Length 357;
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                                                                                                                                                                                                                                                   Indels
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                                              type 1 (isolate NDK)
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                                                                     Search completed: May 16, Job time: 13.1446 secs
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A;Gene: env C;Superfamily: type E retrovirus env polyprotein C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; polyp C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp F;1-30/Domain: signal sequence #status predicted <SIG> F;31-509/Product: exterior membrane glycoprotein #status predicted <EXT> F;510-855/Product: transmembrane glycoprotein #status predicted <TMM> F;87,129,140,158,184,190,200,244,265,292,298,304,334,341,358,364,388,394,400,408,445, F;610,624,636,815/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A:Gene: env
C:Superfamily: type E retrovirus env polyprotein
C:Keywords: AIDS; capsid protein; coat protein; glycoprotein;
F:1-29/Domain: signal sequence #status predicted <SIG>
F:1-29/Domain: signal sequence #status predicted <GIG>
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A;Title: Nucleotide sequence of HIV1-NDK: a highly cytopathic A;Reference number: JQ0065; MUID:90034200; PMID:2806917
A;Accession: JQ0066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:K02007; NID:g328658; PIDN:AAB59882.1; C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-855 <SAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: Nucleotide sequence and expression of an AIDS-associated retrovirus A;Reference number: A04003; MUID:85090453; PMID:2578227 A;Accession: A03976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;502-846/Product: coat protein gp41 #status predicted <CP2>
F;502-520/Domain: transmembrane #status predicted <TM1>
F;674-692/Domain: transmembrane #status predicted <TM2>
F;674-692/Domain: transmembrane #status predicted <TM2>
F;674-692/Domain: 179,182,229,236,257,271,284,290,351,382,388,392,395,401,438,451,452,601.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Sanchez-Pescador, R.; Power, M.D.; Barr, P.J.; Steimer, K.S.; Stempien, M.M.; Brown Science 227, 484-492, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession: A03976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N; Alternate names: coat polyprotein C; Species: human immunodeficiency virus type 1, HIV-1 \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 env polyprotein precursor - human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F;30-501/Product: coat protein gp120 #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Note: the authors translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-846 <SPI>
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C;Accession: J00066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Species: human immunodeficiency virus type 1, HIV-1
                                                                                                                    Matches
                                                                                                                                                                        Query Match
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                                                                                                                                      Local
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                                                       1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 host Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                host Homo sapiens (man)
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YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                 l Similarity 86.31; Conservative
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                                                                                                                                          89.6%;
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                                                                                                                                          Score 173;
Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 173; DB 1;
Pred. No. 3.2e-13;
                                                                                                                    Mismatches
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                                                                                                                 DB 1; I
3.2e-13;
nes 2;
                                                       36
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672
                                                                                                                                                                     Length 855
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as Arg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB seq
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   of hits satisfying chosen parameters:
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193
1 YTSLIYSLLEKSOTO
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length: 2000000000
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16-OCT-2001 (Rel. 40, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: E
glycoprotein (GP120); Transmembrane glycoprotein
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NCBI_TaxID=11689;
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Alizon M., Wain-Hobs
              SEQUENCE FROM N.A. MEDLINE=86245056;
                                                                                                                                                                                                                          CARBOHYD
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AIDS; Coat pro:
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Wain-Hobson S
ariability of
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91.7%;
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Retroviridae; Lentivirus
Montagnier L
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of two isolates from African patients."; Cell 46:63-74(1986).
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InterPro; IPR000777; GP120.
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YTGLIYSLIEESQTQQEKNEKELLELDKWASLWNWF 670
                   YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                        l Similarity
32; Conser
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                                                                              96721 MW;
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                                     Pred. No. 1.2
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Pred. No. 1
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RESULT 4
ENV_HVISC
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ENV_HVISC
AC P0587
OT 01-NO
DT 01-NO
CC Virus
OX NCBLI
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01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
9lycoprotein (GP120); Transmembrane glycoprotein
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PIR; B28922; V
HIV; M17450; E
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Gurgo C., Guo H.-G., Franchini G., Aldovini A., Collalti E.,
Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. Jr.;
Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. Jr.;
"Envelope sequences of two new United States HIV-1 isolates.";
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11702;
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IPR000328; Env_GP41.
IPR000777; GP120.
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RESULT 5
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Best Local Similarity
Matches 32; Conser
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-:- MISCELLANEOUS: ISOLATES WMJ1, WMJ2,
BLOOD SAMPLES SEQUENTIALLY TAKEN FR
WAS PERINATALLY INFECTED BY HER MOT
PIR: A24774; VCLJ3W.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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SEQUENCE FROM N.A.

MEDLINE-86218077; PubMed-2423250;

Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,

Parks E.S., Parks M.P., Josephs S.F., Gallo R.C., V

Parks E.S., Parks M.P., Josephs S.F., Gallo R.C., V

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1993 (Rel. 26, 1
1999 (Rel. 38, 1
e polyprotein Gl
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, Last annotation update)
, Last annotation update)
GP160 precursor [Contains: Exterior membrane
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TRANSMEMBRANE GLYCC
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P12487;
01-OCT-1989
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01-OCT-1989 (Rel. 12, Last sequence update)
16-OCT-2091 (Rel. 40, Last annotation update)
Envelope polyprotein GP100 precursor [Contains:
glycoprotein (GP120); Transmembrane glycoprotein
                                                                                                                                                               AIDS;
                                                                                                                                                                                   Pfam;
                                                                                                                                                                                                     Pfam;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus
Viruses; Retroid viruses; Ret
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                                                                                                                                                                                                                                                                               EMBL; M22639; AAA45370.1;
                                                                                                                                                                                                                                                                                                                  entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (NOV-1988)
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Pro; IPR000777; GP120.
PF00516; GP120; 1.
PF00517; GP41; 1.
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                                                                    Sanchez-Pescador R.;
Molecular characterization of human Zaire: nucleotide sequence analysis i domains in the envelope gene.";
Gene 52:71-82(1987).
                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE=87248097; PubMed=3036660;
Srinivasan A., Anand R., York D., Ranganathan Srhochetman G., Curran J., Kalyanaraman V.S.,
                                                                                                                                                                                                                                                         Human immunodeficiency Viruses; Retroid viruse NCBI_TaxID=11708;
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Ratner L., Haseltine W., Patarca R., Livak K.J., Starcich B.

Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A.,

Baumeister K., Ivanoff L., Petteway S.R. Jr., Pearson M.L.,

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Transmembrane glycoprotein (GP41)].
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SEQUENCE
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                                          Signal.
SIGNAL
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                                                                                                                                                                                                                                                              "Assignment of intrachain disulfide bonds and characterization potential glycosylation sites of the type I recombinant human immunodeficiency virus envelope glycoprotein (gp120) expressed Chinese hamster ovary cells.";
J. Biol. Chem. 265:10373-10382(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENV_HV1B1
P03375;
                                                                                                                                                                                                                                                                                                                                                                                                            Ratner L., Haseltine W., Patarca R., Livak K.J., Starcich B.R., Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A., Baumeister K., Ivanoff L., Petteway S.R. Jr., Pearson M.L., Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.T., Gallo R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
glycoprotein (GP120); Transmembrane glycoprotein
                                                                                                                                   PIR;
HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency
Viruses; Retroid viruse
NCBI_TaxID=11678;
                                                                            AIDS;
                                                                                                                                                                           modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                         Gregory T.J.;
                                                                                                                                                                                                                                                                                                                                             DISULFIDE BONDS, AND CARBOHYDRATE-LINKAGE MEDLINE=90285159; PubMed=2355006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE, FROM N.A. MEDLINE-85111123;
                                                                                       Pfam; PF00516; GP120; Pfam; PF00517; GP41; 1
                                                                                                                                                         EMBL;
                                                                                                                                                                                                               use
                                                                                                                                                                                                                      between the Swiss Institute of Bioinfi
the European Bioinformatics Institute
                                                                                                                                                                                                                                              This
                                                                                                                                                                                                                                                                                                                                                                             "Complete nucleotide sequence Nature 313:277-284(1985).
                                                                                                                                                                                                                                                                                                                                                                                                   Wong-Staal F.;
                                                                                                                                                                                                                                                                                                                                   Leonard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           633
                                                                                                             [nterPro;
                                                                                                                       InterPro;
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                                                                                                                                    M15654;
                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration -
                                                                                                                                             A03973;
                                                                                                                                                         M15654;
                                                                            Coat protein;
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                                                                                                                                                                                                                                                                                                                                  C.K.,
                                                                                                                                                                                                              non-profit institutions as long
                                                                                                             IPR000328; Env_GP41
IPR000777; GP120.
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                                                                            Polyprotein;
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Pred. No. 2.2e-14
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                                  EXTERIOR MEMBRANE GLYCOPROTEIN TRANSMEMBRANE GLYCOPROTEIN.
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                                                                                                                                                                                                                                                                                                                                    R.J.,
                                                                               Transmembrane;
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P04578; 009779;
13-AUG-1987 (Rel. 0
15-JUL-1999 (Rel. 3
30-MAY-2000 (Rel. 3
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HV1H2
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REVISIONS.
Ratner L.,
Gallo R.C.,
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"Complete
virus.";
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SEQUENCE FROM N.A.
MEDLINE=87299196; PubMed=3040055;
Ratner L., Fisher A., Jagodzinski
Gallo R.C., Wong-Staal F.;
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.999 (Rel. 38, Last sequence update)
.000 (Rel. 39, Last annotation update)
.001 (Rel. 39, Last annotation (Contains: E
.01)
.020 (Rel. 30)
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88.9%;
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     Jagodzinski L.L.,
l F.;
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es; Retroviridae; Lentivirus
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MEDLINE=85228248; PubMed=2988795;
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Shaw G.M., Wong-Staal F., Reddy E.
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RESULT 12
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15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
glycoprotein (GP120); Transmembrane glycoprotein
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88.9%;
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es; Retroviridae; Lentivirus.
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RESULT 13
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HIV; !
                                                                                 the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE-8509933; PubMed-2981635;
MEDINF-HOSSON S., Sonigo P., Danos
"Nucleotide sequence of the AIDS
Cell 40:9-17(1985).
                                                                                                                                                                                                                                                          Human immunodeficiency
Viruses; Retroid viruse
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ENV.
        InterPro; IPR000328; Env_GP41
InterPro; IPR000777; GP120.
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                             K02013; AAB59751.1; -. A04321; CAA00352.1; -. A03975; VCLJLV. K02013; ENV$BRU.
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88.9%;
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Last annotation update)
GP160 precursor (Contains: Exterior membrane
Transmembrane glycoprotein (GP41)].
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es; Retroviridae; Lentivirus.
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RESULT 14
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ID ENV_HVIS1
AC P1950;
DT 01-FEB-199
DT 15-JUL-199
DT 15-JUL-199
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DE 91ycoprote
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01-FEB-1991 (Rel. 17, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Eglycoprotein (GP120); Transmembrane glycoprotein
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                                  virus type 1 (SF162 isolate) (HIV-1)
es; Retroviridae; Lentivirus.
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a collaboration -MBL outstation outstation

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RESULT 15
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HIV; M38428; EMV$5F162.
InterPro; IPR000328; EMV_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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Signal.
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J. Virol. 64:3792-3803(1990).
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SQ SEQUENCE 853 AA; 96912 MW; 33778993B6F22ABA CRC64;

Query Match

Best Local Similarity 86.1%; Pred. No. 5.2e-14;

Matches 31; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Qy 1 YTSLIYSILEKSQTQQEKNEQELLELDKWASLWNWF 36

QY 1 YTSLIYSILEKSQTQQEKNEQELLELDKWASLWNWF 671

Search completed: May 16, 2003, 11:13:32

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090295
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Best Local S
Matches 36
Query Match
Best Local Similarity
                                                                                      EMBL; AF075720; AAC31817.1; ...
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120: 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoproteir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Park E.J., Quinnan G.V. Jr., The Submitted (JUL-1998) to the EMBL EMBL; AP075719; AAC3788 1; -. InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120. Pfam; PF00516; GP120; 1. Pfam; PF00517; GP41; 1. AIDS; Coat protein; Glycoprotein AIDS; Coat protein; Glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              090295;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1998
01-NOV-1998
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retrovirio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1998
01-DEC-2001
                                                                                                                                                                                                                                                                               "Mutations in both gp120 and gp41 are responsible neutralization resistance of variant human immunod
                                                                                                                                                                                                                                                                                                                                                                             STRAIN-MN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Envelope glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Park E.J., Vujcic L.K., Anand R., Theodore T.S., Quinnan G.V. Jr.; "Mutations in both gp10 and gp41 are responsible for the broad neutralization resistance of variant human immundeficiency virus type 1 MN to antibodies directed at V3 and non-V3 epitopes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 090294;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ENV
                                                                                                                                                                                                                                                                                                                             Park E.J., Vujcic L.K., Anand R.,
                                                                                                                                                                                                                                                                                                                                                   MEDLINE=98362112; PubMed=9696803;
                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-MN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Viruses; Retroid
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Envelope glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=98362112; PubMed=9696803;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     639
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          łuman immunodeficiency virus
                                                                                                                                                                                                                             MN to antibodies directed at V3 . Virol. 72:7099-7107(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 100.0%;
l Similarity 100.0%;
36; Conservative (
                                                                     protein;
861 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72:7099-7107(1998).
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861 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  viruses;
                                                                Glycoprotein; Polyprotein; Transmembrane. 97617 MW; 36593D08429DC700 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycoprotein; Polyprotein; Transmer 97671 MW; 8136732E44445E56 CRC64;
100.0%;
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19,
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19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Retroviridae; Lentivirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 193; DB 1
Pred. No. 3e-15;
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                                                                                                                                                                                                                                                          and
                                                                                                                                                                                                                                                                                                                        Theodore T.S., Quinnan G.V. Jr.;
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  193;
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3e-15;
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                                                                                                                                                                                                                                                                             immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           update)
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                                                                                                                                                                                                                                                                               virus
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RESULT
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O9EA81;
O1-MAR-2001 (TrEMBLrel. 16, Cr
O1-MAR-2001 (TrEMBLrel. 16, La
O1-DEC-2001 (TrEMBLrel. 19, La
Finvelope glycoprotein (Fragme
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 33
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Q9YYW3;
01-MAY-1999
01-MAY-1999
01-DEC-2001
   Transmembrane.
NON_TER 122
SEQUENCE 122
                                                                     diversity in the United States.";
J. Infect. Dis. 181:470-475(2000).
EMBL; AF190971; AAG02333.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON_TER
                                                                                                     subtypes,
                                                                                                              Weidle P.J., Ganea C.E., Irwin K.L., Pieniazek D., McGov
Olivo N., Ramos A., Schable C., Lal R.B., Holmberg S.D.,
"Presence of human immunodeficiency virus (HIV) type 1,
                                                                                                                       MEDLINE=20134570; PubMed=10669328; Weidle P.J., Ganea C.E., Irwin K.L., Pieniazek D., McGowan J.P. Olivo N., Ramos A., Schable C., Lal R.B., Holmberg S.D., Ernst
                                                                                                                                                                                                      Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JUN-1997) to the EMBL; AF006947; AAD01391.1; InterPro; IPR000328; Env_GP4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Brennan C.A., Lund J.K., Phillips J.F., Kataaha P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; NCBI_TaxID=11676;
                                                                                                                                                             STRAIN-BX923;
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Uganda.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Brennan C.A., Lund J.K., Golden A., Yamaguchi J., Phillips J.F., Kataaha P.K., Jackson J.B., Devare "Serologic and Phylogenetic Characterization of H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENV
                                              Pfam; PF00517; GP41;
                                                                                                                                                                                           NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00517; GP41; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=501.045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                         InterPro; IPR000328;
                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               639
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                                                                                                                                                                                                                                                                                                                                                              1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                YTSLIYSLIEESQTQQEKNEQELLQLDKWASLWNWF 117
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                                                                                                    Bronx, New York: a sentinel site
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117
117 AA;
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    ÅÅ;
    122
14753
                                                Env_GP41.
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                                                                                                                                                                                                                                                                                                                                                                                                      95.3%;
91.7%;
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                                                                                                                                                                                                                                      (Fragment).
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    MΣ,
                                                                                                                                                                                                                                                                        Created)
                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
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Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                     Score 184;
Pred. No. 5
                                                                                                                                                                                                                                                                                             PRT;
     C3FE4DB1F8B5BCBD CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                                                                             122
                                                                                                                                                                                                       Lentivirus
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                                                                                                      for monitoring
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of HIV-1 Subtypes in
                                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                                                                                                                                                                                                                                                                                Length 117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vallari A.S. S.G.;
                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                    group M, non-B
ng HIV genetic
                                                                                                                          1 J.P.,
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Gaps

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RESULT
Q9YYX0
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Best Local
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Best Local :
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25
29xxz5
09xxz5
01-MAY-1999
 Transmembrane.
NON_TER 129
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Viruses; Retroid viruses; Retroviridae;
RCBI_TaxID=11676;
                                                      Submitted (JUN-1997) to the EMBL/GenBank/DDBJ EMBL; AF006888; AAD01332.1; - InterPro; IPR000328; Env_GP41. pfam; PF00517; GP41; 1.
                                                                                                                                         Brennan C.A., Lund J.K., Golden A., Yamaguchi J., Phillips J.F., Kataaha P.K., Jackson J.B., Devare "Serologic and Phylogenetic Characterization of HI
                                                                                                                                                                                                                                                     Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                             Gp41 (Fragment).
                                                                                                                                                                                                                                                                                                                                               01-MAY-1999
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brennan C.A., Lund J.K., Golden A., Yamaguchi J., Vallari A.S., Phillips J.F., Kataaha P.K., Jackson J.B., Devare S.G.; "Serologic and Phylogenetic Characterization of HIV-1 Subtypes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=326.570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gp41 (Fragment).
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01-DEC-2001
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                                                                                                                            uganda.
                                                                                                                                                                                                    STRAIN=191.013
                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00517; GP41; 1.
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33; Conserv
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127 AA;
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91.7%;
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Pred. No. 5.3e-15;
1; Mismatches 1;
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2; Mismatches
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Pred. No. 7
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annotation
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on update)
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S.G.;
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Q69990
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Q69992
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Best Local S
Matches 33
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Best Local
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Q69992;
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069990;

01-NOV-1996 (TrEMBLrel. 01,

01-NOV-1996 (TrEMBLrel. 01,

01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                               NON_TER
SEQUENCE
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                    ENV.
                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
ALDS; Coat protein; Glycoprotein; Polyprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (APR-1994) to the EMBL/GenBank/DDBJ EMBL; U08443; AAB04067.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human immunodeficiency virus type 1 sequence subtypes A through WHO and NIAID Networks for HIV Isolation and Characterization."; J. Virol. 70:1651-1657(1996).
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Karlsson G., Sodroski J., Morgado M.,
von Briesen H., Beddows S., Weber J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENV.
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   Human
                                   Envelope
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Viruses; Retroid viruses; NCBI_TaxID=11676;
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Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                 634 YTSLIYSLIEESQSQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Molecular cloning and analysis of functional envelope
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immunodeficiency
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33; Conser
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91.7%;
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91.7%;
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type
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3; Mismatches
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Pred. No. 7
                                                                                                                                                                                                                                                                                                          Score 183;
Pred. No.
                                                                                                                            PRT;
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                                                                     sequence update)
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.9e-14;
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Best Local 9
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Query Match
Best Local :
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                                                                                               monoclonal antibody.";
proc. Natl. Acad. Sci. U.S.A.
EMBL; U06739; AAA19152.1;
InterPro; IPR000328; Env_GP41.
                                                                                                                                    MEDLINE-94211861; PubMed-7512731; Conley A.J., Kessler J.A., Boots L.J., Tung J.S., Arnold B Keller P.M., Shaw A.R., Emini E.A.; "Neutralization of divergent human immunodeficiency virus variants and primary isolates by IAM-41-2F5, an anti-gp41 monoclonal antibody.";
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01-NOV-1996 (TrEMBLrel.
01-NOV-1996 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
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Submitted (APR-1994) to ti
EMBL; U08442; AAB04065.1;
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Karlsson G., Sodroski J., Morgado M., Galvao-Castro B
von Briesen H., Beddows S., Weber J., Sharp P.M., Sha
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                                                                                                                                                                                                                                        Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID-11676;
                                                                                                                                                                                                                                                                                  Gp41 (Fragment)
ENV.
                                                                                                                                                                                                                                                                                                                                                           069909
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AIDS; Coat protein; Glycoprotein; Polyprotein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Interpro; IPR000328; Env_GP41
Interpro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (MAY-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NIAID/NIH DAIDS Variation Program;
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                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                      SEQUENCE
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                                                             NON_TER
                                                                                        Pfam;
                                                                            Fransmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                       630 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 665
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                    49
                                       AA;
                                      49
6196 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96097 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94.38;
91.78;
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91
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 182; DB 15; Pred. No. 6.5e-14;
  Score
Pred.
                                        E9B618825B832D1E CRC64;
                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                            91:3348-3352(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                            49
                                                                                                                                                                                          Tung J.S., Arnold B.A.,
     5e-15;
                                                                                                                                                                                                                                                           Lentivirus.
                                                                                                                                                                                                                                                                                                                                                            ΑA
               DB 15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CRC64;
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               Length 49;
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RESULT 12
056562
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Q9IJN3
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01-OCT-2000
01-OCT-2000
01-DEC-2001
                                                                                                                                                                                                                           056562;
01-JUN-1998 (TrEMBLrel.
01-JUN-1998 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        heterosexual population in Buenos Aries, Argentina.", AIDS Res. Hum. Retroviruses 16:1007-1014(2000).
EMBL: AF220699; AAF76818.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9IJN3
                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00517; GP41; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Envelope glycoprotein
                                                                                                                                                                                     Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
                                                                                                                                                                                                         ENV.
                                                                                                                                                                                                                                                                        056562
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Masciotra S., Livellara B., Belloso W., Clara L.
Baggs J., Lal R., Pieniazek D.;
"Evidence for a high frequency of HIV-1 subtype
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=11676;
           AIDS;
                                          InterPro;
InterPro;
                                                                                  "Comparison of complete env gene sequences from symptomatic primary HIV type 1 infection.";
                                                                                                                                                                                   Viruses;
                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                            Transmembrane.
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                     Pfam;
                                                                                                                   Ataman-Onal Y.,
                                                                                                                            MEDLINE-99372987;
                                                                                                                                           STRAIN-PHI159
                                                                                                                                                                        NCBI_TaxID=11676;
                                                                                                                                                                                                                   Envelope
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                                Pfam;
                                                               EMBL;
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                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                          /errier B.;
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                                                                         Res.
                     PF00516; GP120
PF00517; GP41;
                                                    res. Hum. Retroviruses 15:1035-1039(1999)
AF041128; AAC02519.1; -.
Coat protein; NCE 851 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33;
                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                   glycoprotein
                             IPR000328; Env_GP41.
IPR000777; GP120.
0516; GP120; 1.
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122 /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TrEMBLrel. 15, Created)
(TrEMBLrel. 15, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                    Coiffier
                                                                                                                    PubMed≔10445815;
oiffier C., Giraud
                                                                                                                                                                                                                                                                                                                                                                                                              14748 MW;
 Glycoprotein; Polyprotein; Transmembrane. 96811 MW; 519363B6FBBFB146 CRC64;
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Last annotation updat
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1; Mismatches
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                                                                                                                      Babic-Erceg A.,
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Query Match Best Local

Matches

Local Similarity nes 32; Conserv

Conservative

93.8%;

Score 181; DB 15; Pred. No. 8.6e-14; 4; Mismatches 0

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Best Local
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Q73304;
Q1-NOV-1996
Q1-NOV-1996
Q1-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9E1R7
Q9E1R7;
01-MAR-2001
              Cleghorn F.R., Jack N., Carr J.K., Edwards J., Mahabir B., Sill A., McDanal C.B., Connolly S.M., Goodman D., Bennetts R.Q., O'Brien T.R., Weinhold K.J., Bartholomew C., Blattner W.A., Greenberg M.L.; "A distinctive clade B HIV type 1 is heterosexually transmitted in Trinidad and Tobago."; Proc. Natl. Acad. Sci. U.S.A. 97:10532-10537(2000). EMBL; AF277071; AAG22514.1; -InterPro; IPR000328; Env_GG41.
                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                      Human immunodeficiency Viruses; Retroid viruse VITUSEN RETROIT VIRUSE NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                       Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                           Ol-MAR-2001 (TrEMBLrel.
Ol-MAR-2001 (TrEMBLrel.
Ol-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS: Coat protein; Glyco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AIDS 10:39-46(1996).
EMBL; U36879; AAC55538.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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                                                                                                                                                                                                                                     MEDLINE=20442410;
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InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   633
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 33; Conserv
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PF00516;
                                                                                                                                                                                                                                                                                                                                                                                                       protein.
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851 AA; 96525 WW; F985D6B4E881F718 CRC64;
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GP120;
                                                                                                                                                                                                                                                                                                                                 viruses;
                                                                                                                                                                                                                             PubMed=10984542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.8%;
91.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for the rescue
                                                                                                                                                                                                                                                                                                                               virus type 1.
es; Retroviridae;
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Pred. No. 8.6e-14;
2; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            855
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RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Transmembrane.
SEQUENCE 855 AA;
                                                                                           pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein;
SEQUENCE 857 AA; 97064 MW; E00
                                                                                                                                                                                                  Park E.J., Vujcic L.K., Anand R., Theodore T.S., Quinnan G.V. Jr., "Mutations in both gp120 and gp41 are responsible for the broad neutralization resistance of variant human immunodeficiency virus
                                                                                                                                          InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                 J. Virol. 72:7099-7107(1998).
EMBL; AF075721; AAC31818.1; -
                                                                                                                                                                          J. Virol.
                                                                                                                                                                                                                                                   STRAIN-MN;
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                                                                                                                                                                                                                                                                                                                                  Envelope glycoprotein.
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                                                                                                                                                                                      1 MN to antibodies directed at V3 and non-V3 epitopes.";
                                                                                                                                                                                                                                     MEDLINE=98362112; PubMed=9696803;
  639
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                       YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
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                                                          Similarity
                                              Conservative
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91.7%;
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19,
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Pred. No. 8.
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                                                                                                      Transmembrane
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Result
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Maximum Match 100%
Listing first 45 summaries
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1: /cgn2_6/ptodata/1

2: /cgn2_6/ptodata/1

3: /cgn2_6/ptodata/1

4: /cgn2_6/ptodata/1

5: /cgn2_6/ptodata/1

6: /cgn2_6/ptodata/1
Query
Match Length
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193
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/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
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US-08-475-668A-5
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US-08-474-349A-5
US-08-98-255-208A-5
US-08-965-056-15
US-08-965-056-15
US-08-965-076-11
US-08-975-100-1
US-08-98-472-240A-2
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US-09-315-304B-1360
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92.7	92.7	92.7	93.3	93.3	93.3	93.3	93.8	93.8	93.8	93.8	94.3	94.3	94.3	94.3	94.3	95.3	95.3
138	138	138	855	855	855	268	269	138	36	36	850	850	850	36	36	36	36
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US-09-570-921-27	US-09-570-921-12	US-09-570-921-3	US-08-647-714-6	US-08-388-809-6	US-08-022-835-6	US-08-965-056-13 ·	US-08-965-056-28	US-09-570-921-19	US-09-315-304B-643	US-09-082-279B-643	US-09-492-739-28	US-09-134-075-28	US-08-448-603A-28	US-09-315-304B-642	US-09-082-279B-642	US-09-315-304B-1361	US-09-082-279B-1361
27,	Sequence 12, Appl	Sequence 3, Appli	Sequence 6, Appli	Sequence 6, Appli	Sequence 6, Appli	Sequence 13, Appl		Sequence 19, Appl	Sequence 643, App	ς-		Sequence 28, Appl	Sequence 28, Appl	Sequence 642, App	Sequence 642, App	Sequence 1361, Ap	Sequence 1361, Ap

## ALIGNMENTS

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RESULT 1
US-08-073-028-5
                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 5, Application US/08073028 Patent No. 5464933 GENERAL INFORMATION:
                                                                     Query Match
Best Local :
                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF TITLE OF INVENTION: TRANSMISSION
                                                                                                                                             MOLECULE TYPE: peptide
                                                    Local Similarity
nes 36; Conserv
                                                                                                                                                                                                                                                                                                                                             NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/073,028 FILING DATE: 07-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: US
ZIP: 10036
                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: New York
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                1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
New York
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                                                                                                                                                               unknown
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                                                                                                                                                                                                                                                                                                                                                             30,742
                                                    0;
                                                                                                                                                                                                                                                                                                                                                7872-004-999
                                                  Score 193; DB 1;
Pred. No. 2.9e-17;
); Mismatches 0;
                                                                                    Length 36;
                                                    Indels
                                                    0;
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В

YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36

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US-08-360-107A-5
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                                                                                                                        Sequence 5, Application US/08360107A Patent No. 6017536
                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/486,099
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/ACTION:
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MOLECULE TYPE:
-08-486-099-5
                                                                                                            GENERAL
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APPLICANT:
APPLICANT:
APPLICANT:
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                                                            APPLICANT:
                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: COTUZZÍ, LBUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 787
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                           APPLICANT:
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STATE: New York
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                                                                                                           INFORMATION:
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10036-2711
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                                                                                                                                                                                                                                                                                                                                                                                                                      36 amino acids
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Langlois, Alphonse J.
IVENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS,
VENTION: B VIRUS TRANSMISSION
FOIFEWENES
                                                        Bolognesi, Dani P. Matthews, Thomas J. Wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (212) 869-9741/8864
             Barney, Shawn O.
Lambert, Dennis M.
Petteway, Stephen R.
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Lambert, Dennis M.
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                                                                                                                                                                                                                                                                                 Conservative
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In Release #1.0, Version #1.30
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100.0%;
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Pred. No. 2.9e-17;
Mismatches 0;
                                                                                                                                                                                                                                                                                                            jength 36;
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GENERAL INFORMATION
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                                                                                                                                                                                                               APPLICANT: Petteway, Stephen R. APPLICANT: Langlois, Alphonse J. TITLE OF INVENTION: COMPOSITION: MEMBRANE FULTITLE OF INVENTION: TRANSMISSION TRANSMISSION
                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: unknown MOLECULE TYPE: peptide
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LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/0
FILING DATE: 20-DEC-1394
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COruzzi, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: TBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                              CORRESPONDENCE ADDRESS:
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REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION:
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                                                                       COUNTRY: USA
ZIP: 10036-2711
                                                                                                          CITY: New York
STATE: New Yor
                                                                                                                                            STREET:
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es 36; Conserv
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 OPERATING SYSTEM:
                                                                                                                                                             ADDRESSEE:
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66141 PENNIE
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                                                                                                                                            E: Pennie & Edmonds LLP
1155 Avenue of the Americas
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1155 Avenue of the Americas
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Barney, Shawn O.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                    COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
                                                                                                                                                                                                                   TRANSMISSION
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Pred. No. 2.9e-17;
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                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/470,896
FILING DATE: 06-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872-020
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                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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MOLECULE TYPE:
                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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ADDRESSEE: Pennie & Edmonds
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TELECOMMUNICATION INFORMATION:
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              TELECOMMUNICATION INFORMATION:
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TELEFAX: 66141 PENNIE
TELEX: 66141 PENNIE
                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                      FILING DATE:
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es 36; Conserv
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10036-2711
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Petteway, Stephen R.
Langlois, Alphonse J.
VENTION: METHODS AND COMPOSITIONS FOR INHIBITION
VENTION: OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIVEVENTION: TRANSMISSION
EQUENCES: 273
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(212) 869-9741/8864
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(212)
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US-08-475-668A-5
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                                                               Matches
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                             TOPOLOGY: ur
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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LENGTH: 36 amino acids
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9990
TELEFAX: (212) 869-9741/8864
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION:
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                                                               Local Similarity
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TOPOLOGY: ur
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                                                               Conservative
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                                                                            100.0%; Score 193; DB 3; 100.0%; Pred. No. 2.9e-17;
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                                                               Mismatches
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
APPLICANT: Petteway, Stephen R.
APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF MEMBRANE
TITLE OF INVENTION: FUSION-ASSOCIATED EVENTS, INCLUDING EPSTEIN-BARR VIRUS
TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                           1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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1155 Avenue of the Americas
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Langlois, Alphonse
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                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 193; DB 3; llarity 100.0%; Pred. No. 2.9e-17; Conservative 0; Mismatches 0;
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                                                                                                               Barney, Shawn O.
                                                                                                                                Wild, Carl T.
                                                                                                                                                 Matthews, Thomas J.
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                                                                                           Lambert, Dennis M.
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N: 435
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                                                                                                                                                                 Dani P.
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APPLIANTE: 06-NUV-1//
PILING DATE: 06-NUV-1//
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
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MEDIUM TYPE: Floppy disk
                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIN Release #1.0.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/554,61
                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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ZIP: 10036
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les 36; Conser
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(212) 869-9741/8864
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                                                                                                                                      PatentIn Release #1.0, Version #1.25
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100.0%; Pred. No. 2.9e-17;
                                                                                                    US/08/554,616
                             US 08/073,028
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ATTORNEY/AGENT INFORMATION:

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RESULT 10
US-08-485-264A-5
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                             TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO:
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                                                                                                                                                         NAME: COTUZZÍ, LAUTA A. REGETRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 78 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                            SEQUENCE CHARACTERISTICS:
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OLECULE TYPE:
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ZIP: 10036-2711
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                            STRANDEDNESS
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Local Similarity 100.0%;
es 36; Conservativo
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1155 Avenue of the Americas
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Langlois, Alphonse J
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(212) 869-9741/8864
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Pred. No. 2.9e-17;
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RESULT 12
US-08-255-208A-5
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION UNMBER: US/08/474,349A FILING DATE: 07-JUN-1995
                                                                                                                                                                                                      MOLECULE TYPE: peptide
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STATE: New York
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                                                                                                                                                                                                                                                                                                                                                                                          NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30
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                                                             1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF
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                                                                                                                                        Local Similarity
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es 36; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wild, Carl T.
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                                                                                                                                                                                                                      unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alphonse J
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                                                                                                                                      Score 193; DB 4; pred. No. 2.9e-17;
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Sequence 5, Applic Patent No. 6440656

Application US/08255208A

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; ORGANISM: Human US-09-570-921-15
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                               SEQ ID
                                                                                                                                                                                                                                                                         GENERAL
                                                                                                                                                                       FILE REFERENCE: 106213
CURRENT APPLICATION NUMBER: US/09/570,921
CURRENT FILING DATE: 2000-05-15
                                                                                                          PRIOR APPLICATION NUMBER: PCT, PRIOR FILING DATE: 1998-11-17 PRIOR APPLICATION NUMBER: FR'PRIOR FILING DATE: 1997-11-17
                                                                            SOFTWARE:
                                                                                         NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                       TITLE OF INVENTION:
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                               TYPE: PRT
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MEDIUM TYPE: Floppy disk
                                            ENGTH: 138
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1994 CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
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36; Conserv
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                                                                                                                                                                                                                       SERRES, PIERRE-FRANCOIS
VENTION: METHOD FOR OBTAINING VACCINES FOR PREVENTING THE
VENTION: PATHOGENIC EFFECTS RELATED TO A RETROVIRAL INFECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1155 Avenue of the Americas
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Petteway Jr., Stephen R.
VENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matthews, Thomas J. Wild, Carl T.
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                                                                                                                                        UMBER: PCT/FR98/02447
1998-11-17
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Patent No. Sequence

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Application US/08022835

GENERAL INFORMATION:

APPLICANT:

Franchini, Reitz Jr.,

Genoveffa Marvin

APPLICANT: APPLICANT:

APPLICANT:

Markham, Phillip D. Gallo, Robert C.

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RESULT 15
US-08-022-835-2
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Best Local Similarity
Matches 36; Conserv
                                                                                                            Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: WinPatin (Ge CURRENT APPLICATION DATA:
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                                                    TYPE: Am.
                                                                                                                                                                                                                                                                                            NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R
                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC of OPERATING SYSTEM:
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                                                                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Robert S. McDowell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Christopher Phelan
lissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                  05-No. 6271198-1997
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Pred. No. 1.2e-16;
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Database
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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length: 2000000000
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/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
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269
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   0 US-09-779-451-5

0 US-09-834-628-1

0 US-09-854-816-1

0 US-09-854-816-108

US-09-848-616-176

0 US-09-779-451-41

0 US-09-779-451-41

0 US-09-779-451-4
                                                                                                                                                                       US-09-854-816-15
US-09-854-816-28
US-09-854-816-50
US-09-854-816-50
US-09-854-816-12
US-09-854-816-12
US-09-854-816-146
US-10-116-99-1
US-09-874-797-1
US-09-493-346-1
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                                                                                                                                                           US-09-796-202-10
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Sequence 16, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 10, Appli
Sequence 5, Appli
Sequence 1, Appli
Sequence 118, App
Sequence 176, App
Sequence 41, Appli
Sequence 41, Appli
Sequence 2, Appli
                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                              Sequence 15, Appl
Sequence 28, Appl
Sequence 13, Appl
Sequence 50, Appl
Sequence 9, Appli
Sequence 12, Appl
Sequence 46, Appl
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	-09-854-816-	-476-242-	US-09-891-609-2	US-09-891-609-4	US-09-854-816-45	-09-85	US-09-854-816-26	US-09-779-451-48	US-09-779-451-50	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1	US-09-854-816-18	US-09-854-816-17	US-09-854-816-16	US-10-059-271-97	US-10-059-271-82		US-10-059-271-84
	10	2	2	4	45	40,	Sequence 26, Appl	48	e 50,	Sequence 55, Appl	53	03,		ω ,	(D	93,	`	49	1, Ap	18,	17,	e 16,	97,	Sequence 82, Appl	Sequence 81, Appl	Sequence 84, Appl

## ALIGNMENTS

RESULT 1
US-09-854-816-15
; Sequence 15, Application US/09854816
; Patent No. US20020151473A1
; GENERAL INFORMATION:

APPLICANT: Andrew C. Braisted

J. Kevin Judice Robert S. McDowell J. Christopher Phelan Melissa A. Starovașnik

Wells

INFORMATION FOR SEQ ID NO: 15: MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA: ZIP: 94080 COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 i TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674 ATTORNEY/AGENT INFORMATION: SEQUENCE CHARACTERISTICS PRIOR APPLICATION DATA: TITLE OF CORRESPONDENCE ADDRESS NUMBER OF SEQUENCES: 113 APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown> TELEFAX: 650/952-9881 NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> STATE: California COUNTRY: USA STREET: 1 DNA Way REFERENCE/DOCKET NUMBER: P1005R2 ADDRESSEE: INVENTION: South San Francisco Genentech, Making Same Constrained Helical Peptides and Methods of

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US-09-854-816-28
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RESULT 3
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Best Local Similarity
                                                                                                                              Query Match
Best Local Similarity
                                                                                                                 Matches
                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
LENGTH: 269 amino acids
TYPE: Amino Acid
TYPE: Amino Acid
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             167 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 202
                                                 169
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                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 94080
COMPUTER READABLE FORM: .
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timoth
REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Andrew C. Braisted
                                                                                                                                                                                            TOPOLOGY: Linear SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: South San
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                               TELEPHONE: 650/225-8674
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                                                                                                                  Conservative
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Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
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                                                                                                                                Score 181; DB 10;
Pred. No. 1.9e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 193; DB 10;
Pred. No. 6.8e-16;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                  Timothy E.
                                                                                                                 Mismatches
                                                                                                                                                                                                   28:
                                                                                                                                                Length 269;
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US-09-854-816-50
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Patent No. US20020151473A1
GENERAL INFORMATION:
APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                              Sequence 50, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 13: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 113
                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                              APPLICANT:
                                                                                            TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 268 amino acids TYPE: Amino Acid TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
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ADDRESSEE: Genentech,
STREET: 1 DNA Way
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                             J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
James A. Wells
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Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                                                                                            Andrew C. Braisted
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                                                                        Making Same
                                                                                                                                 Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 180; DB 10;
Pred. No. 2.5e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
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RESULT 5
US-09-854-816-9
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INFORMATION FOR SEQ ID NO: 50:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 168 YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
nes 32; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/965,056
FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: TOICHIA, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
                                                                                                                                   COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Constrained Helical Peptides and Methods of
Making Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: P1005R2 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                       PRIOR APPLICATION DATA:
                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                      APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: South San Francisco
STATE: California
APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                           COUNTRY: USA
                                                                                                                                                                                                                                                                              CITY: South San Fi
STATE: California
                                                                                                                                                                                                                                                                                                                     STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
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                                                                                                                                                                                                                                        94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Andrew C. Braisted
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88.9%;
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Pred. No. 2.9e-14;
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; SEQUENCE DESCRIPTION: US-09-854-816-12
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US-09-854-816-12
Sequence 12, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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Best Local S
Matches 32
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INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                INFORMATION FOR SEQ ID NO: 12:
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: WinPatin (Genentech)

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/854,816

FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        168 YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity hes 32; Conserv
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                                                                                                                                                                                                                     NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
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NAME: TOTChia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID NO: 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 268 amino acids TYPE: Amino Acid TOPOLOGY: Linear
                                                                              TOPOLOGY: Linear
                                                                                                                                                                                 TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: South San F:
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1 DNA Way
                                                                                                                       LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                  H: 269 amino acids
Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      South San Francisco
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Melissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J. Kevin Judice
Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     James A.
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88.9%;
92.7%;
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                                                           SEQ ID NO: 12:
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Score 179;
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DB 10;
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Length 269;
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US-09-854-816-46
US-09-854-816-46
Sequence 46, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
                                                                                                           US-09-874-475-16
                                                                                                                                RESULT 8
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                                                                      Sequence 16, Application US/09874475 Publication No. US20020182592A1
                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                         GENERAL INFORMATION:
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APPLICANT: Petropoulos, Christos J. APPLICANT: Parkin, Neil T. APPLICANT: Whitcomb, Jeanette
                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO: 46:
                                                                                                                                                                                       169
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MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 269 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
EILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                      SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                      YTSLIYSLIKESQNQQEKNEQELLELDKWASLWNWF 204
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: California
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                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   James A.
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                                                                                                                                                                                                                                                                                                                                                                            Linear
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                                                                                                                                                                                                                                                                              92.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Starovasnik
                                                                                                                                                                                                                                                                              Score 178; DB 10;
Pred. No. 4.5e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 3.4e-14;
3; Mismatches 1;
                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                   DB 10;
                                                                                                                                                                                                                                                                                               Length 269;
                                                                                                                                                                                                                                                              Indels
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; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
; LENGTH: 36
; TYPE: PRT
; ORGANISM: Fusion Inhibitor Peptide
US-09-874-475-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens US-10-116-797-1
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; OTHER INFORMATION: Description of Artificial Sequence: T20 peptide US-09-493-346-1
                                                                                                                                                                                                                                                                                                                                                                 US-09-493-346-1
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Best Local S
Matches 32
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CURRENT FILING DATE: 2002-10-15
NUMBER OF SEQ ID NOS: 5
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
                                                                                          SEQ ID NO 1
LENGTH: 36
                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/09493346 Publication No. US20030082185A1 GENERAL INFORMATION:
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Best Local Similarity
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                                                                                                                            FILE REFERENCE: 61009
CURRENT APPLICATION NUMBER: US/09/493,346
CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.0
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TITLE OF INVENTION: COMPOSITIONS AND METHODS
TITLE OF INVENTION: AND INHIBITORS OF VIRUS
FILE REFERENCE: 2793/65166
CURRENT APPLICATION NUMBER: US/09/874,475
CURRENT FILING DATE: 2001-06-04
NUMBER OF SEQ ID NOS: 16
                                                                                                                                                                                                                           TITLE OF INVENTION: Compositions and Methods TITLE OF INVENTION: Infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING
FILE REFERENCE: 64672-A
                                                                                                                                                                                                                                                                   APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Olsen, William
                                                   ORGANISM: Artificial Sequence
                                                                           TYPE: PRT
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                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 36
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les 32; Conserv
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88.9%;
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Pred. No. 6.7e-15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FOR EVALUATING VIRAL RECEPTOR/CO-RECE ENTRY USING RECOMBINANT VIRUS ASSAYS
                                                                                                                                                                                                                                                   for Inhibition of HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 36;
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; FEATURE:
NAME/KEY: PEPTIDE
LOCATION: (1)..(36)
CHER INFORMATION: T-20
US-09-796-202-10
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                                                                                                                                           ; ORGANISM: Human immunodeficiency virus type 1
US-09-779-451-5
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                                                                    Matches
                                                                                                                                                                                                             SOFTWARE: PatentIn version 3.0 SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
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                                                                                   Query Match
Best Local Similarity
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Best Local
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APPLICANT: Olson, William
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
FILE REFERENCE: 2048/61010/JPW/SHS
CURRENT APPLICATION NUMBER: US/09/798,202
URRENT FILING DATE: 2001-02-28
UMBER OF SEQ ID NOS: 17
COFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                APPLICANT: Wild, Carl T.

APPLICANT: Allaway, Graham P.

ITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors

ILE REFERENCE: 1900.0300003

CURRENT APPLICATION NUMBER: US/09/779,451

CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
                                                                                                                                                                          LENGTH: 36
TYPE: PRT
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TYPE: PRT
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Local Similarity 88.9%;
es 32; Conservative
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                  YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
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88.9%;
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Pred. No. 6.7e-15;
                                                                                 Score 177; DB 10;
Pred. No. 6.7e-15;
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Pred. No. 6.7e-15;
                                                                  Mismatches
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: peptide
; OTHER INFORMATION: DP178
US-09-834-628-1
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SEQ ID NO 1
LENGTH: 36
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Best Local (
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CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
NUMBER OF SEQ ID NOS: 13
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APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PERTIDES FOR INHIBITION OF HIV INFECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: YU, YEON GYU
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
FILING DATE: CUNKNOWN
ATTORNEY/AGENT INFORMATION:
NAME: TOTChia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: p1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Andrew C. Braisted
                                                                                                                                                APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                      STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                        CITY: South San Francisco
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Robert S. McDowell
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88.9%;
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Pred. No. 6.7e-15;
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TYPE: Amino Acids
TYPE: Amino Acid
TYPE: Amino Acid
TOPOLOGY: Linear
MOLECULE TYPE: DP178
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-854-816-1
                                                                                                                TYPE: Amino Acid
TOPOLOGY: Linear
SEQUENCE DESCRIPTION:
US-09-854-816-108
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APPLICATION NUMBER: 08/965,056
FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:

NAME: TOICHIA, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: 91005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEPHONE: 650/952-9881
INFORMATION FOR SEQ ID NO: 108:
SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                    Query Match
Best Local Similarity
Matches 32; Conserv
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Best Local Similarity 88.9%;
Matches 32; Conservative
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TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
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1 YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 36
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
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J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
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APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
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STREET: 1 DNA Way
CITY: South San Francisco
STATE: California
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                                      Conservative
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                                                     91.7%;
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                                    Score 177; DB 10;
Pred. No. 6.7e-15;
3; Mismatches 1;
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Pred. No. 6.7e-15;
3; Mismatches 1.
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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Search completed: May 16, 2003, 12:10:23 Job time : 16.759 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to he score greater than or equal to the score of the result being and is derived by analysis of the total score distribution.
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Gapop 10.0 , Gapext 0.5
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188
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147.792 Million cell updates/sec
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                                                                                                                                                                                                               Length DB
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       GenCore version 5.1.4_p5_4578 (c) 1993 - 2003 Compugen Ltd.
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AAB52687
AAB152687
AAB1600
AAY89388
ABB00634
ABB00796
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AAU13182
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Dp178-like/Dp107-1
Dp178-like/Dp107-1
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1 DP178/107	tin-label	-1 gp41 pept	-1 qp4	YIH-I	2 tran	viral envelop	ore polypeptide	re polypeptide	e polypeptide	e polypeptide	e polypeptid	e polypeptide	e polypeptide	re polypeptide	e polypeptide	e polypeptide	e polypeptide	e polypeptide	re polypeptide	e polypeptide	-1 isolate LA	/DP178 peptid	0/DP178 peptid	/DP178 peptide	-1 LAI qp41 T	tic pept	ID NO. 1 fro	ID NO. 108 fr	-1 derived pe	178 corresponds	-178 derived fr	nti-HIV peptide	re polypepti	ore polypeptide

## ALIGNMENTS

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RESULT 1
AAR64397
07-JUN-1993;
                                                                                                                                                                                                                                antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI; human immunodeficiency virus; transmembrane protein; gp41; alpha helix; leucine zipper; DP-185.
                                07-JUN-1994;
                                                                            WO9428920-A.
                                                                                                                                                                                                                                                                                                                                 AAR64397;
                                                                                                                                                                                                                                                                                                                                                      AAR64397 standard; Peptide; 35 AA
                                                       22-DEC-1994.
                                                                                                                            Modified-site
                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                              DP-178 homologue 66 derived from HIV-1 has antiviral activity.
                                                                                                                                                                                                                                                                                                       25-AUG-1995 (first entry)
                                                                                                                                                                          Modified-site
         93US-0073028.
                                94WO-US05739
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/note=
                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                             /note=
                                                                                                  "optionally has a carboxyl, amido, hydrophobic or macromolecular carrier gp. attached" \ensuremath{\mathsf{T}}
                                                                                                                                      "optionally has an amino, acetyl, 9-fluorenylmethoxy-carbonyl, hydrophobic or macromolecular carrier gp. attached"
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RESULT 2
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                                                                                                                                             Wang
                                                                                                                                                                                                                                                                                                                                Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation; chemoattractant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein-protein interactions, and possess anti-viral activity. The peptide derivs, were identified by a computer assisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        truncated at the amino terminus DP-178 corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 11;
            The
                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peptide sequence search. The peptides inhibit transmission to uninfected cells, and can also be used as type and/or subtype
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Computer search generated synthetic
                                      Claim 12;
                                                                       Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor partial-length T20/DP178 or T21/DP1077 formyl peptide receptor partial-length T20/DP178 or T21/DP1077 formyl peptide receptor
                                                                                                                                                                       (USSH ) US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                  05-MAY-1999;
                                                                                                                                                                                                                           05-MAY-2000; 2000WO-US12371
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                                                                                                                                                                                                                                                                                                        Human immunodeficiency
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              specific diagnostic tools
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAR64365-97 are peptide derivs. of DP-178 (AAR64364) which have been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV transmission
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                                      Page 25; 148pp; English
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                                                                                                                                             Oppenheim
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Pred. No. 2.5e-16;
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of T20/DP178. protein gp41.
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T20/DP178
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Best Local
from the C-helical domain of the gp41 envelope glycoprotein from HIV-1 group M, subtype B, isolate LAI. The invention relates to raisin a neutralising antibody response to a broad spectrum of HIV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or mimics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or mimic the coiled coll solution structure of the N-helical domain (the heptad repeat region), or can correspond or mimic the C-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), or the gp41 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three gp41 proteins. The peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gp41 transmembrane-proximal amphipathic alpha-helical segment; core 6-helix bundle; viral entry inhibition; immunogenic; antibody; humoral response; broad spectrum vaccine; anti-HIV; envelope qlycoprotein; prophylaxis; therapy; group M; subtype isolate LAI.
                                                                                                                                                                                                                                                                                                                                                                                                           (WILD/)
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                                                                                                                                                                                                                                                                        Raising neutralizing antibody response to human immunodeficiency virus, comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
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                                                                                                                                                                                                      Sequences AAB14604-B14606 and AAB14607-B14670 represent peptides derived
                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                           WPI; 2000-465959/40
                                                                                                                                                                                                                                                                                                                                                                            Wild CT,
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07-JAN-2000;
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35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                            Weiss CD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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2000US-0480336
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Pred. No. 2.5e-16;
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response, with the production of antibodies against gp41 structures involved in viral entry. As these portions of gp41 are well conserved, such antibodies may be effective agreement a broad range of HIV strains and isolates. The peptide compositions may be administered as a prophylactic or therapeutic vaccine to generate antibodies which reduce or inhibit the ability of HIV to infect uninfected cells. A composition

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can be administered either singly or as a combination (particularly a combination of N-helical and C-helical peptides), and can be multimerised. For example, N- and C-helical domain peptides can be alternately linked together to form a peptide which mimics the core 6-helix bundle. Administration of the peptide(s) generates a humoral

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pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine.
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                                                                                                                                                                                                         sequence linked to core polypeptides. The enhancer polypeptides and derived from various retroviral envelope (gp41) protein sequences.
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                                                                                                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                                              A new hybrid polypeptide with enhanced comprises enhancer sequence -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TRIM-) TRIMERIS INC
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                                                                                                                                                                                                                                                             invention relates to hybrid polypeptides comprising enhancer peptide
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factor; cytokine; viral;
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                                                                           The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein 9441. The HR1 and HR2 regions of proteins interact non-covalently with each other analyze with peptides derived from them. This interaction is required for
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                                     repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used t
                                                                  normal infectivity of viruses such as RSV and HIV. The heptad
                                                                                                                                                                                     Disclosure;
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                         inhibit HIV infection. The present sequence
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Pred. No. 2.5e-16;
Mismatches 0;
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Syncytial Virus
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                                                                                                                                                                                                                                   The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-ILAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other
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virucide; heptad repeat region; transmembrane protein; gp41; HRl; HR2;
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                                                        Score 188; DB 22;
Pred. No. 2.5e-16;
); Mismatches 0;
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Pred. No. 2.5e-16;
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RESULT 8
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        Human immunodeficiency virus; HIV; respiratory syncytial virus; virucide; heptad repeat region; transmembrane protein; gp41; HRI
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                                                                                                                                       ABB02272 standard; Peptide;
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Pred. No. 2.5e-16;
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                                                                                                                                                                                                                                                                                                           AAU13182 standard; Peptide;
05-JUL-2000; 2000WO-US35727
                                                                                                                                                                                        Anti-retroviral; DP178-like; DP107-like; transmission; antifusogenic; antiviral; HIV transmission;
                                                                                                                                                                                                                             DP178-like/DP107-like peptide T-715.
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                                                                                                                                                                                                                                                                                                                                                                                                                        Score 188; DB 22; Pred. No. 2.5e-16; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JB,
                                                                                                                                                                                                                                                                                                                                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                 35
                                                                                                                                                                                                    transmembrane protein gp41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lambert DM,
                                                                                                                                                                                          mutant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inhibiting virus/cells Syncytial Virus
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                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                          mutein
                                                                                                   Ac"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   35;
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RESULT 10
AAU13342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Вþ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         also relates to a method of identifying compounds that inhibit the formation of or disrupts a DP107/DP178 complex. The method comprises detecting the formation of a DP107/DP178 complex, both in the presence or absence of a test compound, in a reaction mixture containing DP107 and DP178 peptides. The method is useful for identifying compounds, including small molecule compounds, which may themselves exhibit antifusogenic, antiviral or intracellular modulatory activity. The DP178-like/DP107-like peptides are useful to inhibit human and non-human retroviral, particularly HIV, transmission to uninfected cells. The present sequence represents one of the DP178-like/DP107-like peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to peptides which exhibit anti-retroviral activity. The peptides of the invention (AAU12559-AAU14009) comprise DP178-like and DP107-like peptides. The DP178 peptide corresponds to amino acids 639-673 of the transmembrane protein gp41 from human immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide corresponds to amino acids 538-595 of gp41 from HIV-ILAI. The invention
                                                                                                                                                                                                                                                      antifusogenic; antiviral; HIV transmission; mutant; mutein
                                                                                                                                                                                                                                                                                                                                      21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                      AAU13342;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antiviral or intracellular modulatory activity, by detecting the formation of a
                                                                                                                                                                                                                      Human immunodeficiency virus 1 isolate LAI
                                                                                                                                                                                                                                                                       Anti-retroviral; DP178-like; DP107-like;
                                                                                                                                                                                                                                                                                                    DP178-like/DP107-like peptide T-923.
                                                                                                                                                                                                                                                                                                                                                                                                   AAU13342 standard; Peptide; 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DP107/DP178 complex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-442157/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jeffs P,
                                                                                                          WO200151673-A2
                                                                                                                                                        Modified-site
                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-JUL-1999;
                                                                          19-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                          /note= "C-terminal amide"
                                                                                                                                                                         Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 188; DB 22;
Pred. No. 2.5e-16;
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                                                                                                                                                                                                                                                                     transmembrane protein gp41;
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09-JUL-1999;

99US-0350841.

05-JUL-2000; 2000WO-US35727

(TRIM-) TRIMERIS INC

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB77629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to peptides which exhibit anti-retroviral cativity. The peptides of the invention (AAUJ2559-AAUJ4009) comprise DP178-like and DP107-like peptides. The DP178 peptide corresponds comming acids 639-673 of the transmembrane protein gp41 from human comming acids 639-673 of the transmembrane protein gp41 from human comming acids 639-673 of the transmembrane protein gp41 from human comming acids 638-695 of gp41 from HIV-lLAI. The invention calso relates to a method of identifying compounds that inhibit the formation of or disrupts a DP107/DP178 complex. The method comprises detecting the formation of a DP107/DP178 complex, both in the presence or absence of a test compound, in a reaction mixture containing DP107 cand DP178 peptides. The method is useful for identifying compounds, concluding small molecule compounds, which may themselves exhibit contifusogenic, antiviral or intracellular modulatory activity. The DP178-like/DP107-like peptides are useful to inhibit human and non-human retroviral, particularly HIV, transmission to uninfected cells. The present sequence represents one of the DP178-like/DP107-like peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                           Core polypeptide: enhancer; antiviral; anti-HIV; virucide; hepatotropic; antinflammatory; hybrid polypeptide; coiled-coil peptide interaction; fusion-related disorder; bacterial infection; viral infection.
                                                Barney S,
                                                                                                                                                                                                                                                            Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Identifying a compound that inhibits the formation of or disrupts a DPI07/DP178 complex, especially compounds with antifusogenic, antivor intracellular modulatory activity, by detecting the formation of DP107/DP178 complex -
                WPI; 2001-147136/15
                                                                                  (TRIM-) TRIMERIS INC
                                                                                                                     09-JUL-1999;
                                                                                                                                                       10-JUL-2000; 2000WO-US18772.
                                                                                                                                                                                       18-JAN-2001.
                                                                                                                                                                                                                          WO200103723-A1
                                                                                                                                                                                                                                                                                                                                                                               Core polypeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB77629 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the invention.
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                                                Guthrie KI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                     99US-0350641
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                                                Merutka
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                                                Anwer MK,
                                                Lambert DM;
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RESULT 12
AAB77789
ID AAB77
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Best Local S
Matches 35
           New hybrid polypeptide, useful for preventing, treating and e.g. viral infections, comprises an enhancer peptide linked polypeptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  virus-cell fusion (e.g. viral infections caused by human immunodeficiency virus, respiratory syncytial virus. Epstein-Barr virus hepatitis B virus, Mason-Pfizer virus and polio virus). Virus, hepatitis B virus, Mason-Pfizer virus and polio virus). The enhancer peptide sequence increases the half-life and reduces the clearance rate of therapeutic peptides, which increases their efficacy and minimises the incidence and severity of adverse side effects. In addition, this increases the sensitivity of the diagnostic procedure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is a core polypeptide which may be linked to an enhancer peptide to form a novel hybrid polypeptide. The hybrid polypeptide exhibits enhanced pharmacokinetic properties relative to those exhibited by the core polypeptide when introduced into a living system. It is used to increase the in vitro or ex vivo half-life of the core polypeptide. The hybrid and core polypeptides can be used for modulating fusogenic events and intracellular processes involving coiled-coil peptide interactions. Other uses include preventing, treating and/or diagnosing disorders involving fusion events (e.g. modulation of neurotransmitter exchange and sperm-egg fusion) intracellular processes involving coiled-coil peptides (e.g. bacterial infections) and viral infections that involve cell-cell and/or
                                                                                                                                                                                                                                                                                                                                                                       Core polypeptide; enhancer; antiviral; anti-HIV; virucide; hepatotropic; antiinflammatory; hybrid polypeptide; coiled-coil peptide interaction; fusion-related disorder; bacterial infection; viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Core polypeptide T923.
                                                                                   WPI; 2001-147136/15
                                                                                                                                                                                            09-JUL-1999;
                                                                                                                                                                                                                                                                   18-JAN-2001.
                                                                                                                                                                                                                                                                                                    WO200103723-A1.
                                                                                                                                                                                                                                                                                                                                       Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB77789 standard; Peptide; 35 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New hybrid polypeptide, useful for preventing, treating and diagnosing e.g. viral infections, comprises an enhancer peptide linked to a core
                                                                                                                                                                                                                              10-JUL-2000; 2000WO-US18772.
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35; Conser
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                                                                                                                    Guthrie KI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35 AA;
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                                                                                                                      Merutka
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Pred. No. 2.5e-16;
; Mismatches 0;
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                                                                                                                  Anwer MK,
                                                                                                                      Lambert DM
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                               diagnosing
to a core
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RESULT 13
AAB54934
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             virus-cell fusion (e.g. viral infections caused by human immunodeficiency virus, respiratory syncytial virus, Epstein-Barr virus, hepatitis B virus, Mason-Pfizer virus and polio virus). The enhancer peptide sequence increases the half-life and reduces the clearance rate of therapeutic peptides, which increases their efficacy and minimises the incidence and severity of adverse side effects. In addition, this increases the sensitivity of the diagnostic procedure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modulating fusogenic events and intracellular processes involving coiled-coil peptide interactions. Other uses include preventing, treating and/or diagnosing disorders involving fusion events (e.g.
                                                                A modified peptide and a reactive group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds useful for treatment of viral infections, e.g.
                                                    human immunodeficiency
                                                                                                                                               WPI;
                                                                                                                                                                               Bridon DP, Dufresne RP,
                                                                                                                                                                                                                                                     17-MAY-1999;
10-SEP-1999;
                                                                                                                                                                                                                                                                                                        17-MAY-2000; 2000WO-US13651.
                                                                                                                                                                                                                                                                                                                                                23-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                WO200069902-A1
                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    simian immunodeficiency virus; human parainfluenza virus; HPIV; RSV; human respiratory syncytial virus; human immunodeficiency virus; HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Long lasting fusion peptide inhibitor; viral infection; antiviral; antifusogenic; mobile blood component; measles virus; MeV; SIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anti-HIV peptide DP178 amino truncation peptide #32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-MAR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB54934 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modulation of neurotransmitter exchange and sperm-egg fusion), intracellular processes involving coiled-coil peptides (e.g. b infections) and viral infections that involve cell-cell and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the core polypeptide. The hybrid and core polypeptides can be used
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence is a core polypeptide which may be linked to an enhancer peptide to form a novel hybrid polypeptide. The hybrid polypeptide exhibits enhanced pharmacokinetic properties relative to
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                                                                                                                                                                                                                 (CONJ-) CONJUCHEM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
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                                                                                                                                           2001-007496/01.
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Similarity 100.0%;
35; Conservative 0
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99US-0153406
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                                                      virus
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Pred. No. 2.5e-16;
); Mismatches 0;
                                                                                                                                                                             Robitaille M,
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Disclosure;

Page 135;

211pp; English

Computer search generated

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peptides -

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inhibitors

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      reduce the level of membrane fusion events between two or more entities, c. e.g., virus-cell or cell. relative to the level of membrane fusion that occurs in the absence of the peptide. (I) is useful in the treatment of patients who are suffering from viral infection, e.g. HIV, RSV, HPIV, MeV, and SIV. (I) may be administered prophylactically to previously uninfected individuals. This is useful in cases where an individual has been subjected to a high risk of exposure to a virus. By bonding of long-lived components of the blood, such as immunoglobin, serum albumin, red blood cells and platelets the activity is extended for days to weeks. This is due to improved stability in vivo and a reduced susceptibility to peptidase or protease degradation. This minimises the need for more frequent, or even continual, administration of the peptides. AAB54784 to AAB55431 represent peptides used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 35
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                                                           WPI; 1995-036105/05
                                                                                                                                                  Barney SO,
                                                                                                                                                                                                                                                                                07-JUN-1993;
                                                                                                                                                                                                                                                                                                                                               07-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                               22-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DP-178 derived from HTV-1 isolate LAI has antiviral activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR64364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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                                                                                                                    Petteway
                                                                                                                                                                                                                 (UYDU-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09428920-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity es 35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunodeficiency virus; transmembrane protein; gp41;
helix; leucine zipper; DP-185.
                                                                                                                       SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35
                                                                                                                                                     Bolognesi DP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                       Wild
                                                                                                                                                                                                                                                                                93US-0073028
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "optionally has an amino, acetyl, 9-fluorenylmethoxy-carbonyl, hydrophobic macromolecular carrier gp. attached"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "optionally has a carboxyl, amido, hydrophobic
or macromolecular carrier gp. attached"
                                                                                                                                                     Lambert DM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Pred. No. 2.5e-16;
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                                                                                                                                                     Matthews
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Claim 11; Page 132;

182pp; English

HIV transmission

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RESULT 15
AAR98398
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ARR64364 is designated DP-178, and corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein protein interactions, and possess anti-viral activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission to uninfected cells, and can also be used as type and/or subtype specific
                                            The sequences given in AAR98398-408 represent peptides which exhibit antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide structures. These peptides are recognised by the ALLMOTIS, 107x178x4 and PLZIP search motifs. These peptides may be used to
                                                                                                                                                                                 Inhibiting viral transmission, e.g. HIV or RSV, to a cell - using an isolated peptide recognised by an ALLMOTI5, 107 \times 178 \times 4 or PLZIP sequence search motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diagnostic tools.
                                                                                                                                                  Disclosure;
                                                                                                                                                                                                                                                   WPI; 1996-309517/31
                                                                                                                                                                                                                                                                                  Barney SO,
Matthews TJ,
                                                                                                                                                                                                                                                                                                                                                                                 06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9619495-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DP178 corresponds to residues 638-673 of HIV-1(LAI) gp41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-FEB-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR98398 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                 (TRIM-) TRIMERIS INC. (UYDU-) UNIV DUKE.
               inhibit the transmission of a virus, hepatitis B virus, to a cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   al Similarity
35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36 AA;
                                                                                                                                                 Fig 1; 471pp; English.
                                                                                                                                                                                                                                                                                  Bolognesi DP,
, Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                   95US-0470896.
94US-0360107.
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                                                                                                                                                                                                                                                                                    Lambert DM, Wild CT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 188; DB 16;
Pred. No. 2.6e-16;
Mismatches 0;
                               These peptides may be used to , pref. HIV, influenza virus,
                                                                                                                                                                                                                                                                                                     Langlois AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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                                    or
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Вþ
               δÃ
                                                                SS
                                       Query Match
Best Local (
                                 Matches
                                                               Sequence
1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                1 Similarity
35; Conserv
                                                                36
                                 Conservative
                                                                AA;
                                        100.0%;
                                 0;
                                       Score 188; DB 17;
Pred. No. 2.6e-16;
                                 Mismatches
                                  Indels
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Search co Job time completed: May 16, me : 32.5562 secs 2003, 11:12:03

0;

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Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
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                                                                                                                                                                                                                                                                                                                                                                                                        pl number of hits satisfying chosen parameters:
                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                       PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                  283224 seqs, 96134422 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-623-533A-117
188
1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  May 16, 2003, 11:04:54; Search time 11.8072 Seconds (without alignments) 284.970 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
SUMMARIES
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29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	ω	2	1	Result No	
161	163	163	165	166	166	167	167	169	169	170	170	170	170	170	171	172	172	175	176	176	179	179	179	179	188	188	188	188	Score	
85.6	•	•	•	•		88.8			•	•	90.4	90.4	90.4	90.4	•	•	•	•	•	93.6	•	•	•	•	•	100.0	100.0	100.0	ery	æ
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VCLJKX	VCLJBR	S21992	VCLJND	H44001	S22006	VCLJZR	S54384	VCLJA2	S22004	VCLJMN	T12016	S70417	S22000		A41621	S13289	T09448 ·	S21996	\$21998	S21994	VCLJSC	VCLJ3W	VCLJVL	C41621	VCLJLV	VCLJH3	S13288	S33985	ID	
env polyprotein pr		$\supset$		protein p	_		envelope polyprote	т Т	lope protein	protein p	glycopro	protein	protein	envelope protein q	env polyprotein M	env protein - huma	glycopro	envelope protein g	protein	envelope protein g			env polyprotein pr	polyprotein	'n	env polyprotein pr	env protein - huma	polyprotein	Description	

RESULT 3 VCLJH3

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Qy 1 Db 637	Query Matc Best Local Matches	RESULT 2 S13288 env protein - human immur C; Species: human ipmur C; Superian; W.A.: Koyanagi R; O'Brien, W.A.: Koyanagi R; O'Brien, W.A.: Koyanagi Nature 348, 69-73, 1990 A; Title: HIV-1 tropism fc A; Reference number: S13288 A; Reference number: S13288 A; Accession: S13288 A; Status: preliminary A; Molecule type: DNA A; Residues: 1-854 <obr> C; Superfamily: type E ret</obr>	Qy 1 Db 634	Query Ma Best Loo Matches	RESULT 1 S33985 env polyprotein - hum C; Species: human inmu C; Date: 19-Mar-1997 # C; Accession: S33985 R; Carlini, F. submitted to the EMBL A; Reference number: SA, Accession: S33985 A; Status: preliminary A; Molecule type: mRNA A; Residues: 1-851 < CAA A; Cross-references: E C; Superfamily: type		, 33 33 33 33 33 33 33 33 33 33 33 33 33
TSLIHS	Match Local Simi	in - human i human i human immu 9-Mar-1997 # on: \$13288	TSLIHS       TSLIHS	Match Local Sim les 35;	protein - h s: human im 19-Mar 1997 ion: S33985 i, F. d to the EM d to the EM conce sa3985 : prelimina le type: mR es: 1-851 references: amily: type		161 157 157 153 153 144 144 149 140 136 86 86
LIEESQN	ilarity Conserva	n - human immuno human immunodef -Mar-1997 #seque n: S13288 W.A.: Koyanagi, ,69-73, 1990 IV-1 tropism for e number: S13288 n: S13288 n: S13288 preliminary type: DNA : 1-654 <obr> ily: type E retr</obr>	LIEESQN 	imilarity 1 Conservati	n - human in an immunode an immunode -1997 #sequ. 33985 BBL Dat. mber: S3397 33985 E: mRNA 851 <car>nces: EMBL: type E ret.</car>		85.6 83.5 83.5 83.0 81.4 81.4 81.4 81.4 81.4 81.4 84.5 74.5 85.6 85.7 74.5 85.7 74.5 85.7 74.5 85.7
IQQEKNEC	100.0%; 100.0%; vative 0	or ler	IQQEKNEQ 	100.0%; 100.0%; vative	بَا مُنْ لَوْمِ اللَّهُ		859 859 859 868 136 136 136 854 857 877 877 877 877 877
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SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35	; Score 188; DB 2; Length ; Pred. No. 1.2e-14; 0; Mismatches 0; Indels	y virus type 1 irus type 1, HIV-1 ion 19-Mar-1997 #text. zie, A.; Zhao, J.Q.; I zie phagocytes can be 043044; PMID:2172833	SLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35	Score 188; DB 2; Length; Pred. No. 1.2e-14; O; Mismatches 0; Indels	y virus type 1 type 1, HIV-1. 19-Mar-1997 #text ember 1991 0192; PIDN:CAA776	ALIGNMENTS	VCLJKB T01672 B41621 VCLJH4 JU0266 JT0954 VCLJSI A44963 S21990 S49197 A53034 VCLJG3 S03068 VCLJG5 S30448 S30452
	th 854; els 0;	_change 31- Diagne, A.;		th 851; els 0;	_change 26-Aug-		env polyprotein prenvelope polyprote env polyprotein Denvelope polyprote envelope polyprote envelope polyprote envelope polyprotein prenvelope protein prenvelope protein prenvelope protein prenvelope protein envelope otein enveloper
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R;Wain-Hobson, S;; So;
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N;Alternate names: d
C;Species: human imm
A;Note: host Homo sa
C41621
env polyprotein
N;Alternate name
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C; Species: human
A; Note: host Homo
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Nature 313, 277-284, 1985
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
C;Accession: A03973
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C;Genetics:
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A; Residues: 1-856
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1-585/Product: transmembrane glycoprotein #status predicted <TMN>
12-886/Product: transmembrane glycoprotein #status predicted <TMN>
188,135,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,406
1611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status predic
                                                                                                                                                                                     Query Match
Best Local
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Keywords: AIDS;
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                 human
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 polyprotein
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             immunodeficiency virus
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Gallo, R.C.;
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                                                                                                                                                                  0;
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N;Contains: coat pro
C;Species: human imm
C;Date: 30-Sep-1988
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                                               env polyprotein precursor -
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F;31-511/Product: exterior membrane glycoprotein #status predicted <EXT> F;512-856/Product: transmembrane glycoprotein #status predicted <TMM> F;512-856/Product: transmembrane glycoprotein #status predicted <TMM> F;888,136,141,156,160,186,197,230,234,241,262,276,289,245,301,332,339,356,386,392,397, F;611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
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C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp
E;1-30/Domain: signal sequence #status predicted <SIG>
E;1-30/Domain: signal sequence #status predicted (SIG>)
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A;Note: this virus was isolated from the mother's sexual partner
C;Genetics:
A;Gene: env
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; polyp
E;1-251/Product: coat protein gp120 (fragment) #status predicted <GP1>
E;1-251/Product: coat protein gp41 (fragment) #status predicted <GP1>
E;252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>
E;424-443/Product: transmembrane #status predicted <TMN>
E;424-443/Product: transmembrane #status predicted <TMN>
C;424-443/Product: coat protein gp41 (fragment) #status predicted <TMN>
E;424-443/Product: transmembrane #status predicted <TMN>
E;424-443/Product: coat protein gp41 (fragment) #status predicted <TMN>
E;424-443/Productic coat protein gp41 (fragment) #status predicted <TMN>
E;424-443/Product
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A;Accession: C41621
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Cross-references:
C; Genetics:
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C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
C;Accession: A03974
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Proc. Natl. Acad. Sci. U.S.A
A;Title: Evolution of human
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A; Residues: 1-856 < M
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A; Residues: 1-443 <BI
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TSLIHSLIEESQNQQEKNEQELLELDKWANLWNW
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U.S.A. 88, 11236-11240, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D.H.; Cabradilla, C.D.; Benton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95.2%;
94.3%;
                                                                                                                                                                                         95.2%;
97.1%;
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MUID:85111157; PMID:298210
                                                                                                                                                                                         Score 179; DB 1; Pred. No. 1.5e-13;
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Pred. No. 7e-14;
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otein precursor - human immunodeficiency virus: coat protein gp110; coat protein gp41 human immunodeficiency virus type 1, HIV-1 sep-1988 #sequence\_revision 30-Sep-1988 #text\_

#text\_change

type

1 (isolate WMJ1)

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C:Superfamily: type E retrovirus env polyprotein (C:Keywords: capsid protein; coat potein; dlycoprotein; polyprotein; transmembrane protein; F:1-29/Domain: signal sequence #status predicted <SIG>
E-30-861/Product: env polyprotein #status predicted <EPP>
7,129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,340,356,362,386,396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Note: host Homo sapiens (man)
C; Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 16-Feb-1997
C; Accession: B28922
R; Gurgo, C.; Guo, H.G.; Franchini, G.; Aldovini, A.; Collalti, E.; Farrell, Virology 164, 531-36, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Gene:
C;Superf
                                                                                                envelope protein gp120/gp41 - human immunodeficiency virus C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 27B C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_ch C;Accession: S21994; S70421 R;Steuler, H.; Storch-Haggenlocher, B.; Wildemann, B.; Hacke submitted to the EMBL Data Library, July 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Envelope sequences
A;Reference number: A28922;
A;Accession: B28922
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R; Starcich, B.R.; Hahn,
Cell 45, 637-648, 1986
      A; Molecule 1
A; Residues:
                                                             A;Description: Distinct populations A;Reference number: S21990
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VCLJSC
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                                          A; Accession: S21994
                                                                                                                                                                                                                                                                                                                           В
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A; Residues: 1-861 <GUR>
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A; Residues: 1-856 <STA>
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type: DNA
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es: coat polyprotein
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94.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                          Score 179;
Pred. No. 1
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Pred. No. 1
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of H
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1.5e-13;
hes 0;
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                                                                                                               AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A; Title: Distinct populations of human immunodeficiency A; Reference number: S70417; MUID:92144209; PMID:1736940
A; Accession: S70422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references:
C;Superfamily: type
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  A; Experimental A; Note: submit:
                                                      A; Molecule type: DNA
A; Residues: 1-357 <ST2>
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                                     A;Cross-references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1;
                                                                                                A; Status: preliminary
                                                                                                                                                                                                                        C; Accession: S70422;
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the patient he EMBL [

Data

PID:g1067129

B.; Wildemann,

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virus

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A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992 A;Title: Distinct populations of human immunodeficiency virus A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          envelope protein gp120/gp41 - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
A;Variety: isolate 28
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
C;Accession: S21998; S70425
R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-140, 'X', 142-312, 'X', 314-357 <STE2>A; Cross-references: EMBL: X61355; NID: g60179 C; Superfamily: type E retrovirus env polyproteir
envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient C;Species: human immunodeficiency virus type 1, HTV-1 C;Date: 20-reb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
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A; Residues: 1-358 <STE1>
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                                                                                                                                                                                                                                                                                                                                                                              A; Residues: 1-222, 'X', 224-358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        submitted to the EMBL Data Library,
                                                                                                                                                                                                      1 TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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32; Conserv
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                                                                                                                                                                                                                                                                                                                                   nces: EMBL:X61359; NID:g60182; PID:
type E retrovirus env polyprotein
                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           inct populations of HIV-1 in blood $21990
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91.4%;
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91.4%;
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                                                                                                                                                                                                                                                                     Score 176;
Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                       PIDN:CAA43630.1; PID:g60183
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..3e-13;
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N;Alternate names: coat polyprotein
N;Contains: amino end of coat protein gp41; carboxyl end of coat protein gp1
C;Species: human immunodeficiency virus type 1, HIV-1
A;Note: host Homo sapiens (man)
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Accession: A41621
R;Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguyen, P.N.; Gibbs, R.A.
                                                                                                                                               env
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;O'Brien, W.A.; Koyanagi, Y.; Namazie, Nature 348, 69-73, 1990
A;Title:HIV-1 tropism for mononuclear pareference number: S13288; MUID:9104304 ccession: S13289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    env protein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
C;Accession: S13289
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C;Superfamily:
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                                                                                                                                                                                                                                                                                                                                                                                                       C; Superfamily: type E retrovirus env polyprotein
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A; Residues: 1-847 < PAN>
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A:Reference number: Z16673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    envelope glycoprotein - human immunodeficiency virus type 1 (strain JRFL)
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-Nov-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:U63632; NID:g1465777; PID:g1465781
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Residues: 1-847 <OBR>
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                                                                                                                                           polyprotein M - human immunodeficiency virus type 1 (fragment)
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32; Conserv
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                                                                                                                                                                                                                                                                                                                                               Score 172; DB 2; Pred. No. 9.9e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 172; DB 2; Pred. No. 9.9e-13;
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Pred. No. 1.7e-13;
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                                                                                                    of coat protein gp120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              determined
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A;Gene: env
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; polyp
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp
F;1-253/product: coat protein gp10 (fragment) #status predicted <GP1>
F;254-445/Product: coat protein gp41 (fragment) #status predicted <GP2>
F;426-445/Domain: transmembrane #status predicted <TMN>
F;9,23,42,48,78,85,101,107,131,137,143,147,152,155,190,205,353,358,367,379/Binding si
F;9,23,42,48,78,85,101,107,131,137,143,147,152,155,190,205,353,358,367,379/Binding si
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: human immunodeficiency virus type 1, HIV-1
A; Variety: isolate 3L
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
C;Accession: $22002; $70418
R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W.
                                                                                                                                                                                                                                                                                A; Reference number: S: A; Accession: S70418
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                               R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency
A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-358 <STE1>
A; Cross-references: EMBL: X61352; NID: 960186; PIDN: CAA43616.1;
    망
                                                                                                                                                                                        A;Cross-references: EMBL:X61352; C;Superfamily: type E retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number: A; Accession: S22002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood and
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A;Title: Evolution of human immunodeficiency virus type 1 nucleotide sequence diversi
A;Reference number: A41621; MUID:92107924; PMID:1763038
                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-333,'X',335-358 <STE2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: GB:M77228; NID:g328627; PIDN:AAB03790.1; A;Note: this virus was isolated from the mother
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Residues: 1-445 <BUR>
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                                                                                                  Matches
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Local
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                                                                                                  31;
                                                                                             Similarity 88.0
31; Conservative
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88.6%;
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88.6%;
                                                                                                                     Score 170;
Pred. No. 6
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Pred No. 6.4e-13;
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J. Biol. Chem. 265:10373-10382(1990).
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AIDS; Coat protein; P
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InterPro; IPR000777; GP120.
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MEDLINE=87299196; PubMed=3040055;

Ratner L., Fisher A., Jagodzinski

Gallo R.C., Wong-Staal F.;
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15-JUL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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; AF033819; AAC82596.1;
K03455; ENV$HXB2.
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
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                                                                                                                                                                                                                                                                                                                                        MEDLINE=85228248; PubMed=2988795; Crowl R., Ganguly K., Gordon M., Cor Shaw G.M., Wong-Staal F., Reddy E.P.
                                                                                                                                                                                                          EMBL;
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                                                                                                                                                                                                                                                                    the European Bioinformatics Institute.
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NCBI_TaxID=11707;
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een the Swiss Institute of Bioinformatics and the EN
European Bioinformatics Institute. There are no restr
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996 (Rel. 33, Last sequence update)
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polyprotein GP160 precursor [Contains:
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Viruses; Retroid viruse
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5-JUL-1998 (Rel. 36, Last sequence update)
5-JUL-1998 (Rel. 38, Last annotation update)
5-JUL-1998 (Rel. 38, Last annotation update)
invelope polyprotein GP160 precursor [Contains: Exterior |
Contains: Exterior
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                                                                                            non-profit institutions as long as its content is d and this statement is not removed. Usage by and for srequires a license agreement (See http://www.isb-sib an email to license@isb-sib.ch).
                        AAA76690.1; -.
Q70626; -.
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                                           ENV_HV1BR STANDARD; PRT; 861 AA.

P03377;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
glycoprotein (GP120); Transmembrane glycoprotein
       Viruses; Retroid
NCBI_TaxID=11686;
                   Human immunodeficiency virus
Viruses; Retroid viruses; Ret
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                    Retroviridae;
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EMBL; A04321; CAA00352
PIR; A03975; VCLJLV.
HIV; K02013; ENV$BRU.
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"Nucleotide sequence of the AIDS virus,
Cell 40:9-17(1985).
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InterPro: IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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          Local
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P19551;
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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01-FEB-1991 (Rel. 17, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
91ycoprotein (GP120); Transmembrane glycoproteir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entitles requires a license agreement (See http://www.isb-sib or send an email to license@isb-sib.ch).
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11704;
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RESULT 8
ENV_HV1PV
  Query Match
Best Local S
Matches 34
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17 21-JUL-1986 (Rel. 01, La
15-JUL-1999 (Rel. 38, La
Envelope polyprotein GP1,
glycoprotein (GP120...
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P03376;
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Pfam; PF00517; GP41;
AIDS; Coat protein; Po
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                                                                                                                                       EMBL; K02083; AAB59873
EMBL; X01762; CAA25903
PIR; A03974; VCLJVL.
HIV; K02083; ENV$PV22.
                                                                                                                                                                                                                                                           "Nucleic acid structure a AIDS/lymphadenopathy retr. Nature 313:450-458(1985).
                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE=85111157;
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NCBI_TaxID=11700;
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InterPro; IPR000777; GP120.
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CAA25903.1; ALT_SEQ.
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GP160 precursor [Contains:
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EXTERIOR MEMBRANE GLYCOPROTEIN.
TRANSMEMBRANE GLYCOPROTEIN.
BY SIMILARITY.
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
glycoprotein (GP120); Transmembrane
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Garrell K., Wong-Staal F., Gallo R.
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            SWISS-PROT entry is copyright. It is produced through a collab-
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95.2%; 94.3%;

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WAS PERINATALLY INFECTED BY HER MOTI-
INTERPRO; IPRO00328; ENV GP41.
InterPro; IPRO00777; GP170
Pfam; PF00516.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=86218077; PubMed=2423250;
Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,
Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., I
"Identification and characterization of conserved a
regions in the envelope gene of HTLV-III/LAV, the large ".
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15-JUL-1999 (Rel.
Envelope polyprote
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999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains: E
tein (GP120); Transmembrane glycoprotein
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J. Virol. 64:4016-4020(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             between the Swiss Institute of Bioinf
the European Bioinformatics Institute
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InterPro; IPR000777; GP120.
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; PF00517; GP41; 1
; Coat protein; Pc
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     license agreement (See http://www.isb-sib.ch/announce/
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J. Virol. (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; M65024;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cheng-Mayer C., Quiroga M., Tung J.W., Dina D., Levy J.; "Viral determinants of human immunodeficiency virus type 1 T-cell macrophage tropism, cytopathogenicity, and CD4 antigen modulation.
                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro;
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Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R. Salahuddin S.Z., Wong-Staal F., Gallo R.C., Par "Genetic variation in HTLV-III/LAV over time in at risk for AIDS.";
Science 232:1548-1553(1986).
-i- MISCELLANEOUS: ISOLATES WMJ1, WMJ2, AND WMJ BLOOD SAMPLES SEQUENTIALLY TAKEN FROM A TWO WAS PERINATALLY INFECTED BY HER MOTHER.
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01-OCT-1989 (Rel. 12, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Eglycoprotein (GP120); Transmembrane glycoprotein
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               MEDLINE=89352108; PubMed=2669897; Komiyama N., Hattori N., Inoue J., Sakuma S. "Nucleotide sequences of gag and env genes o HIV-1 and their expression in bacteria."; AIDS Res. Hum. Retroviruses 5:411-419(1989).
                                                                        Viruses; Retroid
NCBI_TaxID=11694;
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior |
glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
ENV.
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-!- MISCELLANEOUS: THE MN ISOLATE WAS TAKEN FROM A PEDIATRIC PATIENT IN 1984.
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Pfam; PF00516; GP120;
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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RESULT 5
S54384
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F;1-29/Domain: signal sequence #status predicted <SIG>
F;30-501/Product: coat protein gp120 #status predicted <GP1>
F;502-647/Product: coat protein gp41 #status predicted <GP2>
F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,354,360,390,394,404,447,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               env polyprotein precursor - human immunodeficiency virus type 1 (isolate WMJ1) N;Contains: coat protein gp120; coat protein gp41 C;Species: human immunodeficiency virus type 1, HIV-1
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C;Keywords: coat
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                                                                                                                                                                                                                                               A;Status: preliminary; translated A;Molecule type: mRNA A;Residues: 1-859 <ALI>
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                                                                      В
                                                                                                                                                                                                                                                                                                   A; Reference number: A; Accession: T01672
                                                                                                                                                                                                                                                                                                                  A; Title: Genetic variability of the AIDS virus: Nucleotide A; Reference number: Z14389; MUID:86245056; PMID:2424612
                                                                                                                                                                                                                                                                                                                                                   Cell 46, 63-74,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:K03455; GB:M38432;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Residues: 1-856 <STA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
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                                                                                                                                         Best Loc
Matches
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                                                                                                                                                                                                                                                                                                                                                                                       velope polyprotein precursor - human immunodeficiency virus ty
pecies: human immunodeficiency virus type 1, HIV-1
hte: 19-Feb-1999 #sequence_revision 19-Feb-1999 #text_change
Accession: T01672
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Best Local :
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Accession: A24774
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                                                                                                                                                                          Query Match
                                                                                                                                                                                                                            Cross-references:
                                                                                                                                                                                                                                                                                                                                                                        Alizon, M.; Wain-Hobson, S.; Gluckman, J.C.; Sonigo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tarcich, B.R.; Hahn, B.H.; Shaw, G.M.; McNeely, P.D.; Modrow, 45, 637-648, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tle: Identification and
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                                                                      YTGIIYNLIEESQIQQEKNEKELLELDKWASLWNWF 675
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32; Conserv
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env polyprotein
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Pred. No. 3.9e-14;
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                                                                                                                                                          Score 180; DB 2;
Pred. No. 1.6e-13
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A;Gene: env (;Superfamily: type E retrovirus env polyprotein (;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunod: C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunod: F;1-19/Domain: signal sequence #status predicted <SIG> F;20-855/Product: env polyprotein #status predicted <MAT> F;20-500/Product: exterior membrane glycoprotein #status predicted <EF;501-855/Product: transmembrane glycoprotein #status predicted <TMM> F;87,129,140,145,154,158,186,189,199,236,243,264,278,291,297,333,340,:
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C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 15-Jul-1995 #sequence_revision 01-Sep-1995 #text
                                                                                                                               C;Species: human immunodeficiency virus type 1, HIV-1 A;Note: host Homo sapiens (man)
C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #to C;Accession: B28922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene 52, 71-82, 1987
Gene 52, 71-82, 1987
A;Title: Molecular characterization of human immunodeficiency virus
A:Paference number: A26192; MUID:87248097; PMID:3036660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Date: 30-Sep-1987 #sequence_revision
C;Accession: D26192
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R;Theodore, T.
                                                                         R;Gurgo, C.; Guo, H.G.; Franchini,
Virology 164, 531-536, 1988
A;Title: Envelope sequences of two
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Genetics:
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C;Superfamily: type E retrovirus
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                                     A; Reference number: A28922; A; Accession: B28922
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A; Molecule type: DNA
A; Residues: 1-861 <G
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                                                                                                                                                                                                                   N;Alternate names: coat polyprotein
                                                                                                                                                                                                                                      env polyprotein
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Best Local :
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                                                                                                                                                                                                                                    precursor - human immunodeficiency virus
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86.1%;
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86.1%;
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                                                          of two new United MUID:88219542; PM
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Pred. No.
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Pred. No. 2e-13;
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                                                                                                                     E.; Farrell,
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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RESULT 2 C41621 env polyprot N; Alternate N; Contains: C; Species: h A; Note: host C; Date: 11-F C; Accession: R; Burger, H Proc. Nat1. A; Title: Ev A; Reference A; Accession: A; Molecule t A; Residues: A; Cross-refe A; Note: this C; Genetics: A; Genetics: A; Gene: env C; Superfamil C; Keywords: F; 1-251/prod F; 252-443/pr	RESULT 1 S21996 envelope pro C;Species: h C;Chate: 20-FR C;Chacession: R;Steuler, H AIDS Res. Hu A;Title: Dis: A;Reference: l A;Accession: A;Cossrefet A;Cossre	2 2 2 2 2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4
name amir Hom eb-1 ; C41 ; C41 ; V2 ; C41 ; Y2		164 8 8 165 8 165 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
tein P - human immunodef names: coat polyprotein amino end of coat prote numan immunodeficiency v [Homo sapiens (man) reb-193 #sequence_revis: C41621 [Homo sapiens (man) reb-193 #sequence_revis: C41621 [Homo for human immunod number: A41621; MUID:92 (C41621 [MUID:92 (A41621)] [C41621 [MUID:92 (A41621)] [C41621] [MUID:92 (A41621)] [MUI	in gpl20/gp41 - human imm in mpl20/gp41 - human imm in immunodeficiency virus 1995 #sequence_revision 7042; S21996 Storch-Hagenlocher, B.; Retroviruses 8, 53-59, 1 not populations of human ber: S70417; MUID:921442 1042 S742 S742 S757 Seminary patient 27L source: EMBL.X61356; NID:96 source: EMBL.Data Librated to the EMBL Data Librated to the EMBL Data Librated to the EMBL Data Source: Patient 27L source:	33.3.761.5.00 000055555555000000000000000000000
uman immunodefi at polyprotein of coat protein nodeficiency vi tens (man) sequence_revisi B.; Flaherty, U.S.A. 88, 11 human immunode 41621; MUID:921 R> 8:M77230; NID:9 8:M77230; NID:9 s isolated from retrovirus env sid protein gp120 at protein gp41	Dygp41 - human nodeficiency was equence_revises as 53.196 struses 8, 53-11ations of hilations are trovirus englished by 88.9%; gryative 3; rvative 3; rvative 3; sonooeknegelle	852 852 852 136 136 854 863 151 151 151 151 885
n ggpl	- human siency v se_revis locher, 8, 53-5 8, 53-5 11	22222221122212
iciency virus type 1 in 9p41; carboxyl end irus type 1, HIV-1 ion 31-Dec-1993 #text K.; Gulla, J.; Nguye 1236-11240, 1991 107924; PMID:1763038 107924; PMID:1763038 107924; PMID:1763038 107924; PMID:1763038 107924; PMID:1763038	n immunodeficiency virus virus type 1, HIV-1 sion 20-Feb-1995 #text_ch B.; Wildemann, B. 59, 1992 uman immunodeficiency vii 2144209; PMID:1736940  ID:960181; PIDN:CAA43624. Library, July 1991 nv polyprotein rv polyprotein Score 185; DB 2; Length Pred. No. 1.5e-14; Mismatches 1; Inde	T12016 VCLJBR B41621 JT0954 A44963 VCLJSI VCLJSI VCLJS4 S21990 S49197 A53034 S30452 S30452 S30452 S04322 ALIGNMENTS
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The present sequence is a core polypeptide which may be linked to CC an enhancer peptide to form a novel hybrid polypeptide. The hybrid CC polypeptide exhibits enhanced pharmacokinetic properties relative to CC those exhibited by the core polypeptide when introduced into a living CC system. It is used to increase the in vitro or ex vivo half-life of CC the core polypeptide. The hybrid and core polypeptides can be used for CC modulating fusogenic events and intracellular processes involving CC treating and/or diagnosing disorders involving fusion events (e.g. modulation of neurotransmitter exchange and sperm-egg fusion), intracellular processes involving coiled-coil peptides (e.g. bacterial infections) and viral infections that involve cell-cell and/or CC virus-cell fusion (e.g. viral infections caused by human CC virus, hepatitis B virus, Mason-Pfizer virus and polio virus). The enhancer peptide sequence increases the half-life and reduces the CC clearance rate of therapeutic peptides, which increases their efficacy coin which they are need.
                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New hybrid polypeptide, useful for preventing, treating and diagnosing e.g. viral infections, comprises an enhancer peptide linked to a core polypeptide {\ }^{\circ}
                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 58; 151pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Barney S,
                                                                                                                                                                                                                                                                                                            in which they are used.
1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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ative 0;
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                                                                                                                                                                                  Length 36;
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Search completed: May 16, 2003, 11:12:02 Job time: 33.4578 secs

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AAB78239
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C comprising a therapeutically active amino acid region (III) and a
C reactive group (II) (e.g. succinimidy) and maleimido groups) attached to
C a less therapeutically active amino acid region (IV), which covalently
C bonds with amino/hydroxyl/thiol groups on blood components to form a
C peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
C (I) are useful for modifying therapeutic peptides e.g. hormones, growth
C factors and neurotransmitters, to protect them from peptidase activity
in vivo for the treatment of various disorders. Endogenous therapeutic
C peptides are not suitable as drug candidates as they require frequent
C administration due to rapid degradation by peptidases in the body.
Modifying and attaching therapeutic peptides to albumin prevents or
reduces the action of peptidases to increase length of activity (half
introduction of the components of the comp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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10-SEP-1999;
15-OCT-1999;
                                                                                                                                                                        Core polypeptide; enhancer; antiviral; anti-HIV; virucide; hepatotropic; antiinflammatory; hybrid polypeptide; coiled-coil peptide interaction; fusion-related disorder;
              10-JUL-2000; 2000WO-US18772.
                                                   18-JAN-2001
                                                                                     WO200103723-A1
                                                                                                                        Unidentified.
                                                                                                                                                         coiled-coil peptide interaction;
bacterial infection; viral infect
                                                                                                                                                                                                                                                Core polypeptide T1407.
                                                                                                                                                                                                                                                                                     19-APR-2001
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                                                                                                                                                                                                                                                                                                                                                        AAB78239 standard; Peptide; 36 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         intracellular uptake and interference with physiological processes. AAB90829 to AAB92441 represent peptides which can be used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 662-663; 733pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modifying and attaching therapeutic peptides peptidase degradation, useful for increasing
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nes 36; Conserv
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                                                                                                                                                           infection
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Pred. No. 5.5e-18;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence is a core polypeptide which may be linked to an enhancer peptide to form a novel hybrid polypeptide. The hybrid polypeptide exhibits enhanced pharmacokinetic properties relative to those exhibited by the core polypeptide when introduced into a living system. It is used to increase the in vitro or ex vivo half-life of the core polypeptide. The hybrid and core polypeptides can be used for modulating fusogenic events and intracellular processes involving coiled-coil peptide interactions. Other uses include preventing, the process of the polypeptide of the process of the process of the polypeptide interactions.
                                                                                                                                                                                                                                                                                                                  Core polypeptide; enhancer; antiviral; anti-HIV; virucide; hepatotropic; antiinflammatory; hybrid polypeptide; coiled-coil peptide interaction, fusion-related disorder; bacterial infection; viral infection.
                                                                     09-JUL-1999;
                                                                                                                                                                                                                                                                      Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                           Core polypeptide T1408.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB78240 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   treating and/or diagnosing disorders involving fusion events (e. modulation of neurotransmitter exchange and sperm-egg fusion), intracellular processes involving coiled-coil peptides (e.g. bac infections) and viral infections that involve cell-cell and/or
                    (TRIM-) TRIMERIS INC
                                                                                                                   10-JUL-2000; 2000WO-US18772.
                                                                                                                                                                                                                     WO200103723-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 58; 151pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New hybrid polypeptide, e.g. viral infections, concluseptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-147136/15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       they are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Guthrie KI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
ilarity 100.0%;
Conservative (
                                                                     9908-0350641
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                useful
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 200; DB 22;
Pred. No. 5.5e-18;
...a+ches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for preventing, treating and es an enhancer peptide linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anwer MK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36;
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to a core
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RESULT 12
AAU14013
ID AAU14
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AC AAU14
XX
DT 21-NO
XX
DE DP178
                                                                                                                                                                                                                                                                                                                    CC activity. The peptides of the invention (AAU12559-AAU14009) comprise CC activity. The peptides of the invention (AAU12559-AAU14009) comprise CC p178-like and Dp107-like peptides. The Dp178 peptide corresponds CC immunodeficiency virus 1 (HIV-1) isolate LAI. The Dp107 peptide CC corresponds to amino acids 558-595 of gp41 from HIV-LIAI. The invention CC also relates to a method of identifying compounds that inhibit the CC formation of or disrupts a Dp107/Dp178 complex. The method comprises CC detecting the formation of a Dp107/Dp178 complex. The method comprises CC and Dp178 peptides. The method is useful for identifying compounds, CC including small molecule compounds, which may themselves exhibit CC antifusogenic, antiviral or intracellular modulatory activity. The present sequence represents one of the Dp178-like/Dp107-like peptides.
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                                                                                                                                                                                                                                                  Best Local
                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Identifying a compound that inhibits the formation of or disrupts a DPI07/DPI78 complex, especially compounds with antifusogenic, antiviral or intracellular modulatory activity, by detecting the formation of a DPI07/DPI78 complex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jeffs P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TRIM-) TRIMERIS INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-retroviral; DP178-like; DP107-like; transmembrane protein gp41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DP178-like/DP107-like peptide T-1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU13793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 77; 259pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-442157/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus 1 isolate LAI:
             DP178 homologue
                                          21-NOV-2001
                                                                                                                                                                                                                                                                                             Sequence
                                                                      AAU14013
                                                                                                   AAU14013 standard;
                                                                                                                                                                                        1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                                                                                                                                                                         YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF
                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                             36 AA;
                                                                                                                                                                                                                                100.0%; ilarity 100.0%; Conservative
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                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antiviral; HIV transmission; mutant; mutein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0350841
               derived from
                                                                                                   peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Erickson
                                                                                                   36
                                                                                                                                                                                                                                   0;
               HIV-1 isolate
                                                                                                                                                                                                                                 Score 200; DB 22;
Pred. No. 5.5e-18;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JВ,
                                                                                                    A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Merutka
                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                  36;
                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                   Gaps
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RESULT 13
AAB92246
ID AAB92
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The present invention relates to peptides which exhibit anti-retroviral cativity. The peptides of the invention (AAU12559-AAU14009) comprise CC DP178-like and DP107-like peptides. The DP178 peptide corresponds CC to amino acids 639-673 of the transmembrane protein gp41 from human CC corresponds to amino acids 558-555 of gp41 from HIV-LAI. The invention CC corresponds to amethod of identifying compounds that inhibit the CC corresponds to a method of identifying compounds that inhibit the CC corresponds to a method of identifying compounds that inhibit the CC corresponds that compound, in a reaction mixture containing DP107 CC and DP178 peptides. The method is useful for identifying compounds.

CC or absence of a test compound, in a reaction mixture containing DP107 CC and DP178 peptides. The method is useful for identifying compounds, CC including small molecule compounds, which may themselves exhibit CC antifusogenic, antiviral or intracellular modulatory activity. The CC including in a containing DP107-like DP107-like peptides are useful to inhibit human and non-human CC present sequence represents a DP178 homologue derived from
                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antiviral or intracellular modulatory activity, by detecting the formation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-retroviral; DP178-like; DP107-like; transmission.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-442157/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-JUL-1999;
                                                                           Protection; endogenous therapeutic peptide; peptidase; conjugation;
blood component; modification; succinimidyl; maleimido group; amino
hydroxyl; thiol; hormone; growth factor; neurotransmitter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 1; 259pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DP107/DP178 complex -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                   AAB92246 standard;
                                                                                                                                                 Virus
                                                                                                                                                                                  22-JUN-2001
                                                                                                                                                                                                                  AAB92246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV-1 isolate RF.
                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                     1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                                                                                                                                                                                                                                                                                                                                    YTGIIYNLLEESQNOQEKNEQELLELDKWANLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunodeficiency virus 1 isolate RF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                 (first entry)
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                                                                                                                                               peptide SEQ
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                                                                                                                                                                                                                                                   Peptide; 36
                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
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                                                                                                                                                 ID NO:1422
                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 200; DB 22;
Pred. No. 5.5e-18;
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                                                                                                                                                                                                                                              AA.
                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lawless MK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 transmembrane protein gp41;
                                                                                                                                                                                                                                                                                                                                      36
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                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            non-human
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WO200069900-A2 Synthetic

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ID ABBC
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Best Local S
Matches 36
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Best Local :
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                                                                                                                                           The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required for normal infectivity of viruses such as RSV and HIV. The heptad
                                                                                  Sequence
                                                                                                            repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HTV infection. The present sequence is a peptide provided in
                                                                                                                                                                                                                            Disclosure; Page 525;
                                                                                                                                                                                                                                                       Heptad repeat region peptide analogs useful for inhibiting virus/cells fusion, useful for treating HIV and Respiratory Syncytial Virus
                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                                                                                                                          Antczak JB,
                                                                                                                                                                                                                                                                                                                                                 29-FEB-2000; 2000US-0515965
                                                                                                                                                                                                                                                                                                                                                                    07-FEB-2001; 2001WO-US03988
                                                                                                                                                                                                                                                                                                                                                                                         07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                             WO200164013-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                 Viridiae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus; HIV; respiratory syncytial virus; virucide; heptad repeat region; transmembrane protein; gp41; HR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Viral core polypeptide, SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABB02832;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABB02832 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                              (TRIM-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     infection.
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                                                    Local Similarity
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                                                                                                      specification.
             YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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                                           Conservative
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                                                                                   AA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                   100.0%;
                                                                                                                                                                                                                            587pp; English
                                                                                                                                                                                                                                                                                                          Erickson JB,
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                                                    Score 200;
Pred. No. 5
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Pred. No. 5.5e-18;
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                                           Mismatches
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                                                   DB 22;
5.5e-18;
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                                          Gaps
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RESULT 10 AAU13792

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RESULT 11
AAU13793
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                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to peptides which exhibit anti-retroviral cactivity. The peptides of the invention (ANU1259-ANU1409) comprise CD P178-like and DP107-like peptides. The DP178 Peptide corresponds CC to amino acids 639-673 of the transmembrane protein 9p41 from human CC immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 Peptide CC corresponds to amino acids 558-595 of 9p41 from HIV-1LAI. The invention CC corresponds to amino acids 558-595 of 9p41 from HIV-1LAI. The invention CC also relates to a method of identifying compounds that inhibit the CC formation of or disrupts a DP107/DP178 complex. The method comprises CC detecting the formation of a DP107/DP178 complex, both in the presence CC or absence of a test compound, in a reaction mixture containing DP107 CC and DP178 peptides. The method is useful for identifying compounds, CC including small molecule compounds, which may themselves exhibit CC antifusogenic, antiviral or intracellular modulatory activity. The CC peptides are useful to inhibit human and hon-human cretrovital, particularly HIV, transmission to uninfected cells. The peptides of a percent sequence represents one of the DP178-like/DP107-like peptides
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antivor or intracellular modulatory activity, by detecting the formation of DP107/DP178 complex -
AAU13793 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                 of the invention.
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                                                                                                                                 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF
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36; Conser
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V transmission;
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Pred. No. 5.5e-18;
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                                                                                                                                                                                                                                                                                                                                                                                                                                               virucide; infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Viral DP178/107-like region peptide T1408
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Heptad repeat region peptide analogs useful for inhibiting virus/cells fusion, useful for treating HIV and Respiratory Syncytial Virus infection \dot{\,}
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Pred. No. 5.5e-18;
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                       The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
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specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          heptad repeat region; transmembrane protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Delmedico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36
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Pred. No. 5.5e-18;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lambert DM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sista
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gp41;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RSV;
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RESULT 5
AAG67041
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                         used as vaccine immunogens. Immunogenic compositions comprise a viral envelope protein or its fragment exterior to the viral membrane, a stabilising peptide to disrupt formation of structural intermediates necessary for viral fusion and entry, and optionally, a viral cell surface receptor or its fragment. The stabilising peptide is capable of associating with the envelope protein or its fragment to form a stabilised, fusion active structure. Antibody binding assays are used to determine the ability of immunogen vaccines to generate an immune response to various forms of envelope. Virus neutralisation assays can be used to characterise the antibody response raised against HIV-1 gp41 domains. The sequences and methods are useful for inhibiting HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neutralising antibodies which target regions of viral envelope proteins such as the gp120/gp41 (glycoprotein 120/glycoprotein 41) complex of HIV-1 (human immunodeficiency virus 1). Sequences AAU70179-AAU70198 and AAU70677-AAU7013 represent stabilising peptides modelling the alpha-helical regions of the ectodomain of the HIV-1 transmembrane
                                 HIV-1 gp41 peptide DP178 homologue DP-185.
                                                                    03-JAN-2002
                                                                                                    AAG67041;
                                                                                                                                   AAG67041 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to methods of generating immunogens that elicit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunogenic composition for inhibiting HIV infection, comprises viral envelope protein or its fragment exterior to viral membrane, a stabilising peptide, and optionally, viral cell surface receptor or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-626098/72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wild CT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (PANA-) PANACOS PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-MAR-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; HIV-1; human immunodeficiency virus; gp41; glycoprotein 41; gp120;
anti-HIV; stabilising peptide; viral envelope protein; glycoprotein 120;
alpha-helical region; ectodomain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HIV viral envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein to stabilise fusion-active intermediate structures, which
                                                                                                                                                                                                                                                                                                                                                                                                               intection,
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                                                                                                                                                                                                                                           YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF
                                                                                                                                                                                                                      YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
immunodeficiency virus; HIV; respiratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6;
                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                               for
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                                                                                                                                                                                                                                                                                         Conservative
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                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                              AA;
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                                                                                                                                                                                                                                                                                                                                                                                                             inducing an immune response in an animal and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein stabilising peptide
                                                                                                                                                                                                                                                                                                            100.0%;
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                                                                                                                                       36 AA
                                                                                                                                                                                                                                                                                     Score 200; DB 22;
pred. No. 5.5e-18;
                                                                                                                                                                                                                                                        36
syncytial virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #
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                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                          36;
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                                                                                                                                                                                                                                                                                         Gaps
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RESULT 6
ABB01246
ID ABB0
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-ILAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required and/or with peptides derived from them. This interaction is required
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided :
                             WO200164013-A2
                                                                            Modified-site
                                                                                                                                                         Viridiae
                                                                                                                                                                                                                       Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV;
                                                                                                                                                                                                                                                      Viral DP178/107-like
                                                                                                                                                                                                                                                                                      03-JAN-2002
                                                                                                                                                                                                                                                                                                                     ABB01246;
                                                                                                                                                                                                                                                                                                                                                    ABB01246 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        normal infectivity of viruses such as RSV and HIV. The heptad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example; Fig 1; 587pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Heptad repeat region peptide analogs useful for inhibiting virus/cells fusion, useful for treating HIV and Respiratory Syncytial Virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-514829/56
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                                                                                                           Modified-site
                                                                                                                                                                                                        virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-FEB-2000; 2000US-0515965
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                               1 YTGITYNLLEESQNQQEKNEQELLELDKWANLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36;
                                                                                                                                                                                                        heptad repeat region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; ilarity 100.0%; Conservative (
                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Delmedico
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                                                                          36
                                                                                                                          Location/Qualifiers
                                                           /note=
                                                                                           /note=
                                                                                                                                                                                                                                                    region peptide T1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MK,
                                                           "C-terminal amide"
                                                                                         "N-terminal is substituted by Ac"
                                                                                                                                                                                                                                                                                                                                                    36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 200; DB 22;
Pred. No. 5.5e-18;
                                                                                                                                                                                                                                                                                                                                                    AΑ
                                                                                                                                                                                                      transmembrane protein; gp41; HR1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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RESULT 2
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Best Local S
Matches 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This peptide is isolated from HIV-1 isolate.RF, and is a homologue of the peptide DP-178. DP-178 corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 588-595) which contains a leucine pipter motif. The peptides complex via non-covalent protein-protein interactions, and possess anti-viral activity. The peptide inhibits transmission to uninfected cells, and can also be used as type and/or
                                                     The sequences given in AAR98398-408 represent peptides which exhibit antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide structures. These peptides are recognised by the ALLMOTIS, 107x178x4 and PLZIP search motifs. These peptides may be used to
                                                                                                                                                                       Inhibiting viral transmission, isolated peptide recognised by sequence search motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR98400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR98400 standard; peptide; 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subtype specific diagnostic tools.
                                                                                                                                                                                                                                  WPI; 1996-309517/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide corresponding to résidues 638-673 of HIV-1(RF) gp41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-FEB-1997
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                                                                                                                                          Disclosure; Fig 1; 471pp; English.
                                                                                                                                                                                                                                                                                                                                                                06-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9619495-A1
                            hepatitis
                                                                                                                                                                                                                                                               Matthews
                                                                                                                                                                                                                                                                           Barney
                                                                                                                                                                                                                                                                                                                      (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                   20-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                             20-DEC-1995;
                                                                                                                                                                                                                                                                                                      (UYDU-) UNIV DUKE.
                                            nhibit the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 YTGIIYNLLEESQNQQEKNEQELLELDKWANLWNWF 36
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                                                                                                                                                                                                                                                 v so,
- TJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                      he transmission of a virus, pref. HIV, influenza virus of B virus, to a cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36
                                                                                                                                                                                                                                                            Bolognesi DP,
, Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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94US-0360107.
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                                                                                                                                                                                                                                                             Lambert DM,
Wild CT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 200; DB 16;
Pred. No. 5.5e-18;
Mismatches 0;
                                                                                                                                                                                    e.g. HIV or
an ALLMOTI5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                          Langlois
                                                                                                                                                                                   RSV, to a c
5, 107x178x4
                                         influenza virus, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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                                                                                                                                                                                                    a cell -
                                                                                                                                                                                      or PLZIP
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Sequence

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14-FEB-2002

(first entry)

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RESULT 3
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Best Local Similarity

Matches 36; Conser
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                                                                                                                                                                                                                                                                                                            AAW17012-W17016 are DP-178 homologues that are useful in the treatment of HIV infection. DP-178 is a peptide corresponding to residues 638-673 of HIV type 1 glycoprotein 41 (gp41) transmembrane protein. DP-178 and its derivatives/homologues are used in combinativith a therapeutic agent, e.g a reverse transcriptase, viral proteas with a therapeutic agent, e.g a reverse transcriptase, viral proteas
                                                                                                                                                                                                                                                                                                                                                                                                                        Compsns. contg. DP-178 or DP-107 in combination with other therapeutic agent - useful for treatment of HIV infection, esp. inhibiting replication or transmission of HIV.
                                                                                                                                                                                                                                                           cytokine, glycosylation or viral mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting viral replication or inhibiting transmission. They may also be used in vaccines for protecting against HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV; SIV: human; simian immunodeficiency virus; glycoprotein 41; transmembrane; antiviral; DP-178; DP-107; vaccine; inhibition;
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                           AAU70181;
                                                      AAU70181
                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Figure 1; 84pp; English.
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                                                                                                                     YTGIIYNCLEESQNQQEKNEQECLECDKWANLWNWF
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                                                                                                                                                                                                                                   AA;
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                                                    Peptide;
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Pred. No. 5.5e-18;
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Pred. No. 5.5e-18;
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
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Gapop 10.0 , Gapext 0.5
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147.792 Million cell updates/sec
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AAR98400
AAW17013
AAU70181
AAG67041
AAB601246
ABB01247
ABB02831
ABB02833
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Viral DP178/107-li
Viral core polypep
Viral core polypep
DP178-like/DP107-l
                                                                                                                                                                       HIV viral envelope
HIV-1 gp41 peptide
Viral DP178/107-1i
Viral DP178/107-1i
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Peptide correspond
DP-178-like peptid
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AT.TGNMENTS	1490	6834	2287	6832	2285	6828	2281	6838	2291	6831	2284	1401	6704	1701	9839	6769	8276	9450	6831	2284	6831	2284	6832	228	P80966	P70175	AW4307	6830	AY2283	5478	7824	7823	AAB92246	1401	1379
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Envelope protein g
HIV-1 gpl20, protei
Sequence encoded b
HIV protein HT7.
SEQ ID NO. 50 from HIV-1 gp41 peptide
Dp178 homologue, p
SEQ ID NO. 43 from
Envelope protein g
SEQ ID NO. 110 froo
HIV envelope prote
SEQ ID NO. 13 from Envelope protein g Sequence encoded b Ancestral HIV-1 gr DP-178 homologue d DP178-like/DP107-1
DP178 homologue de
Virus related pept
Core polypeptide T Envelope protein SEQ ID NO. 67 from DP-178 homologue d DP185 corresponds DP-178-like peptid Envelope protein g SEQ ID NO. 38 from Envelope p Envelope protein SEQ ID NO. 41 fro HIV antiviral acti SEQ ID NO. 33 from Core polypeptide protein g O. 48 from 50 from . 41 from protein g encoded b

g

## ALIGNMENTS

AΑ

Result

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PALICANT: PAUL, MADDON J
PPLICANT: JOHN, MOORE P
PPLICANT: JOHN, MOORE P
PPLICANT: JOHN, MOORE P
PPLICATION STABILIZED VIRAL ENVELOPE PROTEINS AND USES THEREOF
EILE REFERENCE: 2048/59331az
CURRENT FILING DATE: 2002-10-24
PRIOR APPLICATION NUMBER: 09/602,864
PRIOR FILING DATE: 2000-06-23
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin version 3.1
SEQ ID NO 15
LENGTH: 579
TYPE: PRT
ORGANISM: Human immunodeficiency virus type 1
US-10-032-162-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 269 amino acids
TYPE: Amino Acid
TOPOLOGY: Linear
SEQUENCE DESCRIPTION: SEQ ID NO: 12:
US-09-854-816-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
US-10-032-162-15
: Sequence 15, Application US/10032162
: Publication US/20030052839A1
: GENERAL INFORMATION:
TAMPS M
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Search completed: May 16, 2003, 12:10:22
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                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: BINLEY, JAMES M
APPLICANT: SCHUELKE, NORBE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDION TYPE: 3.5 inch, 1.44 Mb floppy disk
MEDION TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <UNKnown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / Match 93.4%;
Local Similarity 91.7%;
nes 33; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OLSON, WILLIAM C
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                                                                                                                           Conservative
                                                                                                                                          93.4%;
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Pred. No. 9.6e-15;
                                                                                                                           2; Mismatches
                                                                                                                                        Score 185; DB 9;
Pred. No. 2.2e-14;
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Job time: 16.759 secs

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Sequence 8, Application US/09854816;
Patent No. US20020151473A1
GENERAL INFORMATION:
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                                                                  Best Loc
Matches
                                                                                                    Query Match
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TYPE: PRT
168 YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                    Local Similarity
nes 33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
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                               1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/965,056
FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                     SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
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MEDIUM TYPE: 3.5 i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
33; Conserv
                                                                                                                                                                       LENGTH: 268 amino acids TYPE: Amino Acid TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: CUNKNOWN>
R APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: 3.5 inch. 1.44 Mb i
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS_VS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
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                                                                    Conservative
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Melissa A. Starovasnik
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Robert S. McDowell
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                                                                                  93.4%;
91.7%;
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91.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inch, 1.44 Mb floppy disk
                                                                                 Score 185; DB 10;
Pred. No. 9.6e-15;
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                                                                 Mismatches
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                                                                                                  Length 268;
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RESULT 13 US-09-854-816-9

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Best Local Similarity
Thes 33; Conserva
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US-09-854-816-12
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                                                                                                                                                                                                                                             Sequence 12, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 9:
                                                                                                                                                                                                                                                                                                                                                                         168 YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 203
             NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc
STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: TOTChia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                           TITLE OF
                                                                                                                                                                                                                           APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA
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COMPUTER READABLE FORM:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 James A. Wells TITLE OF INVENTION: Constrained
                                                                                                                                                                                                                                                                                                                                                                                                  YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
STREET: 1 DI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 268 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: CUnknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                           INVENTION:
                                                                                                                                                 Melissa A. Starovasnik
                                                                                                                                                                J. Christopher Phelan
                                                                                                                                                                                      J. Kevin Judice
Robert S. McDowell
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Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
                                                                          James A. Wells
VENTION: Constrained Helical Peptides and Methods
Making Same
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91.7%;
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Pred. No. 9.6e-15;
2; Mismatches 1
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COUNTRY: USA

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; TOPOLOGY: Linear;; MOLECULE TYPE: HIV-JRCSF; SEQUENCE DESCRIPTION: SEQ ID NO: US-09-854-816-7
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Best Local Similarity
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TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
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FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
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                                                                                                CURRENT APPLICATION DATA:
APPLICATION UMBER: US/09/854,816
FILING DATE: 15-May-2001
APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                            CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 1
                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 268 amino acids TYPE: Amino Acid
                                                                                                                                                                                  MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                       STATE: California
                                                                                                                                                                                                                                                                                                                        CITY: South San Francisco
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Melissa A. Starovasnik
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Pred. No. 5.5e-15;
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CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
SOFTWARE: PatentIn version 3.0
SEQ ID NO 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Human immunodeficiency virus type 1 US-09-779-451-47
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US-09-779-451-47
; Sequence 47, A
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Best Local Similarity
Matches 34; Conserv
                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Wild, Carl T.
APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.030003
FILE REFERENCE: 1900.030003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn version 3.0 SEQ ID NO 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. US20020094521A1
                                                                                                                                                                                                                                                                                                                   Sequence 45, Application US/09779451 Patent No. US20020094521A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR APPLICATION NUMBER: US 60/181,543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Allaway, Graham P. TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 28: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            169 YTSLIYTLLEESQNQQEKNEQELLELDKWASLWNWF 204
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Torchia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/09779451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 269 amino acids
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Pred. No. 5.5e-15;
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RESULT 6
US-09-891-609-2
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; Patent No. US20020127238A1
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; ORGANISM: Human
US-09-891-609-4
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                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                          SEQ ID NO 4
LENGTH: 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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Best Local :
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NUMBER OF SEQ ID NOS: 4
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Stamatatos, Leondias
TITLE OF INVENTION: HIV-1 VACCINES AND SCREENING METHODS THEREFOR
FILE REFERENCE: 2570-1-002N
                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/891,609
CURRENT FILING DATE: 2001-06-26
PRIOR APPLICATION NUMBER: 60/214,608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: TORChia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REBERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEPHONE: 650/225-9881
INFORMATION FOR SEQ ID NO: 26:
SEQUENCE CHARACTERISTICS:
                                                                                                              574 YTNLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 94.4 ies 34; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 1
                                                                                                                                                                                      34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                           immunodeficiency virus type 1
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: California
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1; Mismatches
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                                                                                                                                                                                                     Score 190; DB 10;
Pred. No. 5.8e-15;
                                                                                                                                                                                    Mismatches
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RESULT 8
US-09-854-816-7
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                                                                                                                                                                                                                                                                Sequence 7, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
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LENGTH: 847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: HARTOG, Karin
APPLICANT: MARTIN, Eric
TITLE OF INVENTION: MODIFIED HIV ENV POLYPEPTIDES
FILE REFERENCE: 1605.002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
LENGTH: 646
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Best Local
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CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 26
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CURRENT FILING DATE: 2001-06-26
PRIOR APPLICATION NUMBER: 60/214,608
PRIOR FILING DATE: 2000-06-27
NUMBER OF SEQ ID NOS: 4
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TITLE OF INVENTION: HIV-1 VACCINES AND SCREENING METHODS THEREFOR
FILE REFERENCE: 2570-1-002N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                   629 YTNLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 664
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les 34; Conserv
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                                                                       CORRESPONDENCE ADDRESS
                                                                                                                                TITLE OF
                                                                                          NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                               APPLICANT: Andrew C. Braisted
CITY: South San Francisco
STATE: California
                                     STREET: 1 DNA Way
                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                              INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                               J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
                                                                                                                                                                   Melissa A. Starovasnik
                                                                                                                                                  James A. Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96.0%;
94.4%;
                                                     Genentech, Inc
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94.4%;
                                                                                                        Making Same
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Pred. No. 6.1e-15;
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US-09-854-816-31

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TOPOLOGY: Linear;
; SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-10-000-321-11
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US-09-854-816-30
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RESULT 3
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                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: TOICHIA, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEFAX: 650/225-8674
TELEFAX: 650/925-9881
INFORMATION FOR SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local Similarity
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                                                    169 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 204
                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF .36
                                                                                          1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                         LENGTH: 269 amino acids
TYPE: Amino Acid
TYPE: Anino Acid
TOPOLOGY: Linear
SEQUENCE DESCRIPTION: SEQ ID NO: 30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Making Same NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Genent
STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Andrew C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             James A. Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      drew C. Braisted
Kevin Judice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 198; DB 12; 100.0%; Pred. No. 1.4e-16;
                                                                                                                                                 100.0%;
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                                                                                                                               Score 198; DB 10;
Pred. No. 2.7e-16;
; Mismatches 0;
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                                                                                                                                                                 Length 269;
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Query Match
Best Local Similarity
~~+~hes 36; Conserv;
                                                                                                                                                                                                                                                                               US-09-854-816-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-854-816-31
                                                                                                                                                                                                                                                                                                   RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 31, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
                                                                                                                                                                                                                       Sequence 26, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 31:
                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: <U PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Andrew C. Braisted
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech,
STREET: 1 DNA Way
                                                                                           TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                               APPLICANT: Andrew C. Braisted
J. Kevin Judice
Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: Linear SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 113
                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: South San F
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 269 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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Robert S. McDowell
                                                                                                                              Melissa A.
                                                                                                                                             J. Christopher Phelan
                                                                                                              Jamės A. Wells
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                                                                     Making
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                                                                                                                              Starovasnik
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Pred. No. 2.7e-16;
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Database :
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-623-533A-3
198
1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              May 16, 2003, 11:20:00; Search time 15.759 Seconds (without alignments) 220.333 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        362588 seqs, 96450795 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                         Published_Applications_AA: *
"/cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
'/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
'/cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
'/cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
'/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
'/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
'/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
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'/cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
'/cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match 1	Length	DВ	ID	Description
1	198	100.0	145	12	US-10-000-321-11	Sequence 11, Appl
2	198	100.0	269	10		30,
ω	198		269	10	US-09-854-816-31	
4	190	96.0	268	10	-09-	26,
u	190	96.0	619	10	US-09-891-609-4	4, A
6	190	96.0	646	10	US-09-891-609-2	Sequence 2, Appli
7	190	96.0	847	10	US-09-476-242-2	2
00	187		268	10	US-09-854-816-7	Sequence 7, Appli
9	187	94.4	269	10	US-09-854-816-28	Sequence 28, Appl
10	185	93.4	36	10	US-09-779-451-47	•
11	185	93.4	46	10	US-09-779-451-45	Sequence 45, Appl
12	185		268	10	US-09-854-816-8	Sequence 8, Appli
13	185	93.4	268	10	US-09-854-816-9	9
14	185		269	10	US-09-854-816-12	12,
15	185	93.4	579	9	US-10-032-162-15	Sequence 15, Appl
16	185	93.4	625	9	US-10-032-162-17	Sequence 17, Appl
17	185	93.4	643	φ	US-10-032-162-13	-
18	184	92.9	267	10	US-09-854-816-38	Sequence 38, Appl
19	184	92.9	268	10	US-09-854-816-41	Sequence 41, Appl

45	44	43	42	41	40	39	38	37	36	ω 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
176	176	176	176	176	176	176	176	176	176	176	176	176	176	177	177	177	177	178	178	179	180	181	181	183	183
88.9	88.9	8	8	œ	8	88.9	æ	8	œ	æ	88.9	88.9	88.9	89.4	9	9	9	9	9	0	90.9	$\vdash$	91.4	92.4	92.4
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9	9	9	10	10	9	10	10	10	10	10	9	9	9	10	10	10	10	10	10	10	10	10	10	10	10
US-10-059-271-81	US-10-059-271-84	US-10-040-349B-2	US-09-779-451-4	US-09-779-451-41	US-09-848-616-176	US-09-854-816-108	US-09-854-816-1	US-09-834-628-1	US-09-779-451-5	US-09-796-202-10	US-09-493-346-1	US-10-116-797-1	US-09-874-475-16	US-09-854-816-46	US-09-854-816-43	US-09-854-816-37	US-09-854-816-20	US-09-854-816-33	US-09-854-816-11	US-09-854-816-39		US-09-854-816-42	US-09-854-816-13	US-09-854-816-6	US-09-854-816-109
																									-
Sequence 81, Appl		Sequence 2, Appli	•	Sequence 41, Appl	Sequence 176, App	Sequence 108, App	Sequence 1, Appli	Sequence 1, Appli	Sequence 5, Appli	Sequence 10, Appl	Sequence 1, Appli	Sequence 1, Appli	Sequence 16, Appl	Sequence 46, Appl	Sequence 43, Appl	-	Sequence 20, Appl	Sequence 33, Appl	Sequence 11, Appl	`		Sequence 42, Appl	Sequence 13, Appl	Sequence 6, Appli	Sequence 109, App

## ALIGNMENTS

. H	RESULT US-10- Sequ Pate GE
COUNTRY: USA ZIP: 20007-5109 ZIP: 20007-5109 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: IBM PC COMPATER OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION NUMBER: US/10/000,321 FILING DATE: 04-Dec-2001 CLASSIFICATION NUMBER: US/10/000,321 FILING DATE: (Unknown) PRIOR APPLICATION DATA: APPLICATION NUMBER: 09/131,551 FILING DATE: (Unknown) ATTORNEY/AGENT INFORMATION: NAME: SANDERCOCK, COlin G. REGISTRATION NUMBER: 31,298 REFERENCE/DOCKET NUMBER: 58315/106/BEAK TELEPOMUNICATION INFORMATION: TELEPHONE: (202)672-5390 TELEPAX: (202)672-5399 TELEFAX: (202)672-5399 INFORMATION FOR SEQ ID NO: 11: SEQUENCE CHARACTERISTICS:	RESULT 1  US-10-000-321:11  Sequence 11, Application US/10000321  Patent No. US20020123039A1  Patent No. US20020123039A1  GENERAL INFORMATION: APPLICANT: BRUST, Stefan GERKEN, Manfred GUERTLER, Lutz GUERTLER, Lutz GUERTLER, Lutz TITLE OF INVENTION: Peptides derived from a retrovirus of NUMBER OF SEQUENCES: 11 CORRESPONDENCES: 11 CORRESPONDENCE ADDRESS: ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W., Suite 500 STATE: D.C. STATE: D.C. STATE: D.C. STATE: D.C.

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STREET: 3000 K S CITY: Washington

3000 K Street, N.W., Suite 500

COUNTRY:

USA

D.C.

20007-5109

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US-09-131-551-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 11, Application US/09131551
Patent No. 6335158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                APPLICANT: KNAPP, Stefa
APPLICANT: GERKEN, Manf
APPLICANT: GUERTLER, LI
APPLICANT: GUERTLER, LI
TITLE OF INVENTION: Pep
TITLE OF INVENTION: the
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 11:
                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 145 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: DE P 44 05 810.1 FILING DATE: 23-FEB-1994 ATTORNEY/AGENT INFORMATION: NAME: SANDERCOCK, COlin G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                PRIOR APPLICATION DATA:
                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: BRUST, APPLICANT: KNAPP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 31,298
REFERENCE/DOCKET NUMBER: 58:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 141
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                                                     APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/0:
FILING DATE: 23-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: PC-DOS/MS-DOS
                                      CLASSIFICATION:
                                                                                                                                                                                                                               STATE:
                                                                                                                                                                                                                                               CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
 APPLICATION NUMBER:
                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                            PRY: USA
20007-5109
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                                                                                                                                                                                                                             D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                904136
                                                                                                                                                                                                                                                                 E: Foley & Lardner
3000 K Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                          GERKEN, Manfred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                         Stefan
                                                                                                                                                                                                                                                                                                                               Peptides derived from a retrovirus of the HIV group, and their use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                        Lutz
08/394,021
                                                                     US/09/131,551
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Pred. No. 6e-17;
                                                                                                                                                                                                                                                                 Suite 500
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                                                                                                          #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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US-09-131-551-11
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                                                             US-08-965-056-30
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Best Local Similarity 100.
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No.
             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
Matches
                                                                                                                                                                    CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: TOTCHIA, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                         TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: SANDERCOCK, Colin G.
REGISTRATION NUMBER: 31.298
REFERENCE/DOCKET NUMBER: 58
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/965,056 FILING DATE: 05-No. 6271198-1997
                                                                                                                          SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
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                                                                                                                                        TELEPHONE: 650/252-9881
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                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Genentech, Inc
STREET: 1 DNA Way
                                                                             TOPOLOGY:
                                                                                                          LENGTH:
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5. 6271198
36;
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                                                                                                        269 amino acids
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Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J. Christopher Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J. Kevin Judice
Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          James A. Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Andrew.C. Braisted
                                                                            Linear
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         100.0%; Score 198; DB 4; 100.0%; Pred. No. 1.2e-16;
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                                                                                                                                                                                                                                                                                                                                                                                1.44 Mb floppy disk
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Mismatches
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Length 36;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
US-08-255-208A-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/315,304B CURRENT FILING DATE: 1999-05-20 PRIOR APPLICATION NUMBER: 09/082,279 PRIOR FILING DATE: 1998-05-20 NUMBER OF SEQ ID NOS: 1667 SOFTMARE: FastSEQ for Windows Version 3.0 SEQ ID NO 1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 36; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Barney, S.
APPLICANT: Guthrie, K.
APPLICANT: Merutka, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: LAMBERT, D. TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC PITLE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                equence 3,
                                                                                                                                                                                                                                                                                                                                                                                                                ENERAL INFORMATION:
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TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                 tent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/255,208A
                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds LLP
                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
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                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                           CITY: New York
STATE: New York
                                                                                                                                                                                                 STREET:
                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                  Barney, Shawn O.
Lambert, Dennis M.
Petteway Jr., Stephen
TVENTION: SYNTHETIC PEP
                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                             Wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                           Bolognesi, Dani P. Matthews, Thomas J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                   TRANSMISSION: 111
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Pred. No. 1.3e-17;
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                                                                                                                                                                                                               RESULT 13
US-08-394-021-11
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                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Human
US-09-570-921-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: SERRES, FITTLE OF INVENTION: TITLE OF INVENTION: FILE REFERENCE: 1062
                                                                                                                                                                              Patent No.
                                                                                                                                                                                             Sequence 11, Application US/08394021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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Best Local Similarity 100.0%;
Matches 36; Conservative (
                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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                                                                                   GENERAL INFORMATION:
APPLICANT: BRUST, Stefan
APPLICANT: KNAPP, Stefan
APPLICANT: GERKEN, Manfred
APPLICANT: GUERTLER, Lutz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATE: 1998-11-1/
PRIOR FILING DATE: 1998-11-1/
PRIOR APPLICATION NUMBER: FR/9
--- PTI-THG DATE: 1997-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/570,921
CURRENT FILING DATE: 2000-05-15
PRIOR APPLICATION NUMBER: PCT/FR98/02447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
TYPE: amino acid
                               TITLE OF INVENTION: Peptides derived from a retrovirus TITLE OF INVENTION: the HIV group, and their use NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 787
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,
                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                         Local Similarity 100.
nes 36; Conservative
                                                                                                                                                                                                                                                                                      99 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 134
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                       1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                5830634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PatentIn
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :: (212) 790-9090
(212) 869-9741/81
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Foley & Lardner
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1998-11-17
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METHOD FOR OBTAINING VACCINES FOR PREVENTING THE
PATHOGENIC EFFECTS RELATED TO A RETROVIRAL INFECTION
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Pred. No. 1.3e-17;
                                                                                                                                                                                                                                                                                                                                                                        Score 198; DB 4; Pred. No. 5.7e-17;
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YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36

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RESULT 7
US-08-485-264A-3
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                                                                                                                                    GENERAL INFORMATION: APPLICANT: Barney,
                                                                                                                                                                                                          Sequence 1357, Application US/09082279B Patent No. 6258782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
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                                                                  APPLICANT:
                                                                                                      APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: COTUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 07-JUN-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
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MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
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10036-2711
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                                                              Barney, Shawn
Guthrie, Kelly
Merutka, Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66141 PENNIE
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Anwer, Mohmed 
Lambert, Dennis
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(212) 869-9741/8864
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Langlois, Alphonse J.
VENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Barney, Shawn O.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lambert, Dennis M.
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Pred. No. 1.3e-17;
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SEQ ID NO 1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3
Patent No.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                     TELEX: 66141 PENNIE
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CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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MOLECULE TYPE:
                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                                                   TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                    NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 78
                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 07-JUI CLASSIFICATION:
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les 36; Conserv
                                                                                                                    TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                           STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                            ZIP:
           TOPOLOGY: unknown
                                                           LENGTH:
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5. 6333395
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10036-2711
                                            amino acid
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                                                           36 amino acids
                                                                                                                    2: (212) 790-9090
(212) 869-9741/8864
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Langlois, Alphonse
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Wild, Carl T.
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Lambert, Dennis M.
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                                                                                                                                                                                                                                                 07-JUN-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       517
                                                                                                                                                                                                                                                                                             Release #1.0, Version #1.30
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Pred. No. 1.3e-17;
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE:

PatentIn Release #1.0, Version #1.30

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                                                                                                                                                                    STAIL.

COUNTRY: USA
ZIP: 10036-2711

ZIP: 10036-2711

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

MEDIUM TYPE: Floppy disk

PC-008/MS-D08

""lease #1.0,
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Langlois, TITLE OF INVENTION: TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tent No.
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, LAURA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872-023
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                           APPLICATION NUMBER: US/O FILING DATE: 07-JUN-1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                              CITY: New York
STATE: New York
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Langlois, Alphonse J.
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Conservative 0
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Query Match
Best Local Similarity
Matches 36; Conserv
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                                                                             TOPOLOGY: ur
MOLECULE TYPE:
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                                                                                                                                         SEQUENCE CHARACTERISTICS: LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 10036-2711

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION:
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MOLECULE TYPE: peptide
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                                                                                                                                                                                       TELEFAX: (212) 869-9741/8864
TELEX: 66141 PENNIE
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                                                                                             unknown
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              Score 198; DB 3; Pred. No. 1.3e-17;
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Pred. No. 1.3e-17;
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                                           Patent No.
                                                       Sequence 3,
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Best Local Similarity
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            GENERAL INFORMATION:
APPLICANT: Bologne
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CORRESPONDENCE ADDRESS:
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REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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ATTORNEY/AGENT INFORMATION:
NAME: COruzzi, Laura A.
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                                                                                                                                                                                                                                                            TOPOLOGY: unknown MOLECULE TYPE: peptide
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APPLICANT:
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NO. 6020459
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1155 Avenue of the Americas
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Petteway, Stephen R.
Langlois, Alphonse J
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Bolognesi, Dani P.
Matthews, Thomas J
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N: 435
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; Mismatches 0;
                                                                                                                                                                                               Score 198; Db .,
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0.
CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                              APPLICANT: Pettcway, Stephen R.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF MEMBRANE TITLE OF INVENTION: FUSION-ASSOCIATED EVENTS, INCLUDING INFITITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
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                                                                                                       CORRESPONDENCE ADDRESS:
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                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 10036-2711
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/470,896 FILING DATE: 06-JUN-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
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COUNTRY: USA
ZIP: 10036-2711
                                                                 STREET:
                                    STATE:
                                                CITY: New York
                                                                                   ADDRESSEE:
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Langlois, Alphonse J.
Langlois Authorise Transitions for Inhibition
VENTION: METHODS AND COMPOSITIONS FOR INHIBITION
VENTION: OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
VENTION: TRANSMISSION
EQUENCES: 273
                                                                    1155 Avenue of
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(212) 869-9741/8864
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1: /cgn2_6/ptodata/1,

2: /cgn2_6/ptodata/1,

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4: /cgn2_6/ptodata/1,

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US-08-184-2293-3
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US-08-485-5264A-3
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NUMBER OF SEQUENCES:

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; MOLECULE TO US-08-486-099-3
                                                                                                                                                            INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/486
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZÍ, LBUTA A.
REGISSTATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872
                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
TELEX: 66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                                     ZIP: 10036-2711

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                        SEQUENCE CHARACTERISTICS: LENGTH: 36 amino acids
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STREET: New York
CITY: New York
"TATE: New York
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COUNTRY: USA
ZIP: 10036-2711
                                                                       TOPOLOGY:
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                                                      TYPE:
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Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
                                                                       Envelope glycoprotein
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Masciotra S., Livellara B., Belloso W., Clara L., Tanuri A., Ramos Baggs J., Lal R., Pleniazek D.;
"Evidence for a high frequency of HTV-1 subtype F infections among metalence for a high frequency of HTV-1 subtype F infections among heterosexual population in Buenos Aries, Argentina.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; NCBI_TaxID=11676;
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STRAIN=RJ97BRP131;
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Brindeiro
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Pred. No. 3.7e-15;
2; Mismatches 1
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Pred. No. 3.7e-15;
0; Mismatches 2;
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iro R., Schable C., Pieniazek D.,
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Search completed: May 16, Job time: 27.3124 secs
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Best Local S
Matches 34
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Klasse P.J., Boyd M.T., Weiss R.A., Schulz T.F.;
"Mutations in the vpu, env, and nef genes of a syncytium-inducing variant of HIV type 1 JR-CSF that infects a range of T cell lines.";
AIDS Res. Hum. Retroviruses 12:347-350(1996).
EMBL; U45960; AAB60591.1; ...
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Pfam; PF00517; GP41; 1
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34; Conserv
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183
193
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183
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96433
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                         2003,
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RESULT 10
Q9YXN4
RESULT 11
Q9EAA2
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Q9YXN4;
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                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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Submitted (NOV-1997) to the EM
EMBL; AF034069; AAC79321.1; ".
Interpro; IPR000328; Env_GP41.
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Costa L.J., Telles J.G.,
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        Weidle P.J., Ganea C.E., Irwin K.L., Pieniazek D., McGowan J.P., Olivo N., Ramos A., Schable C., Lal R.B., Holmberg S.D., Ernst J.A.; "Presence of human immunodeficiency virus (HIV) type 1, group M, non-B subtypes, Bronx, New York: a sentinel site for monitoring HIV genetic diversity in the United States.";

J. Infect. Dis. 181:470-475(2000).
                                                                                                                                                                                                                    Q9EAA2;
                                                                                                                                                                                                                                Q9EAA2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus type
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01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                  Transmembrane.
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                                                                                          STRAIN-BX161;
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NCBI_TaxID=11676;
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122 AA;
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14811 MW;
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94.4%;
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91.7%;
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Pred. No. 1.6e-14;
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Pred. No. 2.
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RESULT 13 Q9YXM9

O9YXM9; PRELIMINARY; O9YXM9; 01-MAY-1999 (TrEMBLrel. 1 01-MAY-1999 (TrEMBLrel. 1 01-DEC-2001 (TrEMBLrel. 1

(TrEMBLrel. 10, PRELIMINARY;

Created)

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ENV

Viruses; Retroid viruses;
NCBI\_TaxID=11676;
[1]

Human immunodeficiency virus Envelope glycoprotein

Retroviridae;

Lentivirus

type

immunodominant

Last sequence update)
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odominant region (Frag

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RESULT 12
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O11944; O1-JUL-1997 (TrEMBLrel. 04,
01-JUL-1997 (TrEMBLrel. 04,
01-DEC-2001 (TrEMBLrel. 19,
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                                                                                                                                                                                                                                                                                       MEDLINE-98035047; PubMed-9367752;
Douglas N.W., Munro G.H., Daniels R.S.;
"HIV/SIV 94/coproteins: Structure-Function
J. Mol. Biol. 273:122-149(1997).
EMBL; Y13716; CAA/4044.1;
InterPro: IPR000278; Env_GP41.
InterPro: IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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isolate: HIV-1GB8.";
631 YTNTTYTLIEESQNQQEKNEQELLELDKWANLWNWF
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i.H., Farrar G.H., J
serologic study of
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122
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96612 MW; 30
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91.7%;
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91.78;
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Pred. No. 2.8e-15;
2; Mismatches 1
                                                                                                                    Score 188; DB 1
Pred. No. 2e-14;
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                                                                                                                                           Length 849
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Q9YP50
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Matches
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Best Local :
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                                                                                                                                                                            01-NOV-1999
01-NOV-1999
01-DEC-2001
Pfam;
Pfam;
                                                                                          Fang
                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00516; GP120; 1.

Pfam; PF00517; GP41; 1.

AIDS; Coat protein; Glycoprotein; Polyprotein; TAIDS; Coat Protein; Glycoprotein; A5AC60C558B990BC
                                                                                                                                                                                                                                                                                                                                                                                              Submitted (SEP-1996) to the EMBL/GenBank/DDBJ databases EMBL; U6958; AADI0883.1; -. InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                   Submitted (SEP-1996) to the EMBL/GenBank/DDBJ databases EMBL; U69592; AAD10939.1; -- IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                                                            Non-Progressive Infection
                                                                                 Fang G., W
Burger H.;
                                                                                                     SEQUENCE FROM N.A.
                                                                                                                        Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
NCBI_TaxID=11676;
                                                                                                                                                                 Envelope polyprotein.
                                                                                                                                                                                                            Q9WJU4;
                                                                                                                                                                                                                       Q9WJU4
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Burger H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Envelope
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01-DEC-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein;
SEQUENCE . 860 AA; 97739 MW; IFE
                                                                                                                                                                                                                                                                                                                                                                                                                                         Non-Progressive Intection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=11676;
                                                                      "Complete Plasma HIV-1 Sequence:
                                                                                                                                                                                                                                                                         642
                                                                                                                                                                                                                                                                                                                                                                                                                                                    'Complete Plasma HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    642 YTNLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 677
                                                                                                                                                                                                                                                                                                                           Local
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വ
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 PF00516;
PF00517;
                                                                                                                                                                                                                                                                      YTNLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 677
                                                                                                                                                                                                                                                                                                               Similarity 94.4
34; Conservative
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                                                                                           Weiser B.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyprotein.
                                                                                                                                                                          (TrEMBLrel.) (TrEMBLrel.
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GP120; 1
GP41; 1.
                                                                                          Chappey
                                                                                                                                                                                                                                                                                                                         96.0%;
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94.4%;
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Last annotation updat
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Pred. No. 1.2e
1; Mismatches
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Pred. No. 1
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1FEB24AAFD7F4216 CRC64;
                                                                                          Visosky
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                                                                                           Townsend L.,
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                                                                      Deletion
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RESULT
Q9YP48
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Best Local
Trinidad and Tobago.";
Proc. Natl. Acad. Sci. U.S.A. 9:
EMBL; AF277073; AAG22516.1; -.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
                                                                                                                                                                                                                                                                                                                                                                              Q9E1R5 PRELIMINARY;
Q9E1R5;
01-MAR-2001 (TrEMBLrel. 1
01-MAR-2001 (TrEMBLrel. 1
01-JUN-2002 (TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9YP48;
Q9YP48;
01-MAY-1999
01-MAY-1999
01-DEC-2001
                                                                                                                         Cleghorn F.R., Jack N., Carr J.K., Edwards J., Mahabir B., McDanal C.B., Connolly S.M., Goodman D., Bennetts R.Q., O'l Weinhold K.J., Bartholomew C., Blattner W.A., Greenberg M. Weinhold K.J., Bartholomew C., Blattner W. W., Greenberg M. Weinhold K.J., Bartholomew C., Blattner W. W., Greenberg M. W. Weinhold K.J., Bartholomew C., Blattner W. W., Greenberg M. W., 
                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE=20442410; PubMed=10984542;
                                                                                                                                                                                                                                                                                                                                               ENV.
                                                                                                                                                                                                                                                                                                   Human immunodeficiency vi
Viruses; Retroid viruses;
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; SEQUENCE 864 AA; 98167 MW; 2A
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InterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Non-Progressive Infection.
Submitted (SEP-1996) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunodeficiency virus type Viruses; Retroid viruses; Retrovir NCBI_TaxID=11676;
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34; Conserv
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34; Conserv
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IPR000777; GP120.
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94.4%;
                                                                                                                                                                                                                                                                                                   virus type 1.
es; Retroviridae;
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16,
21,
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19,
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Last annotation update)
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Pred. No. 1
                                                                                   97:10532-10537(2000)
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BE12C858E9CE4D11 CRC64;
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                                                                                                                                                                                                                                                                                                   Lentivirus
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.2e-14;
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.2e-14;
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T.R.,
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Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein
SEQUENCE 849 AA; 96764 MW; 6
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01-OCT-2000
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MEDLINE-91366314; PubMed-1890410;

Farrar G.H., Roff M.A., Amin T., Ball J., Parrett A.M.,

Battacharyya U., Booth J., Wansbrough-Jones M.H., Greena

"Characterisation of a series of human immunodeficiency
derived sequentially from a single patient.";

J. Med. Virol. 34:104-113(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=SUBTYPE B;
MEDLINE=96100812; Pub
Vella C., Smith M.H.,
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                                                                       Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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EMBL; AJ271445; CAB92793.1; -.
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MEDLINE=20418939;
Novelli P., Vella C., Oxford J.S.,
"Biological characterization of an
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  MEDLINE=96100812;
Vella C., Smith M
                                      SEQUENCE FROM N.A.
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pfam; pF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; 1
SEQUENCE 849 AA; 96704 MW; 78F1C47ACA79F3EE
                                                                                                                                                                                                                                                                                                                                                Daniels R.S., Patel D., Xiau
"Evidence for the spread of
Korean population.";
Submitted (OCT-2001) to the
EMBL, AJ417415; CAD10127.1;
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        InterPro;
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                          Non-Progressive Infection.";
Submitted (SEP-1996) to the EMBL/GenBank/DDBJ
EMBL; U69588; AAD10907.1;
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Q9E1R7	Q74999	09IJQ6	Q9YXM9	011944	Q9EAA2	Q9YXN4	Q9E1R5	Q9YP48	Q9WJU4	Q9YP50	Q9YP43	Q8Q863	Q9PXE5	Q9IBN3	080161	ID
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635 YTNTIYTLLEESQNQQEK.EQELLELDKWASLWNWF 670	1 YTNTTYTLLEESQNQQEKNEQELLELDKWASLWNWF 36	Similarity 100.0%; Pred. No. 1.3e-15; 6; Conservative 0; Mismatches 0;		SEQUENCE 853 AA; 97056 MW; 2181503CF1D14789 CRC64;	AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.	Ptam; PF00516; GP120; 1.	InterPro; IPR000777; GP120.	InterPro; IPR000328; Env_GP41.	EMBL; L07422; AAA80324.1;	J. Virol. 65:6931-6941(1991).	changes in tat and gp120.";	immunodeficiency virus type 1 are determined by very few amino acid	"Host range, replicative, and cytopathic properties of human	Cheng-Mayer C., Shioda T., Levy J.A.;	MEDLINE=92046357; PubMed=1658383;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=11676;	Viruses; Retroid viruses; Retroviridae; Lentivirus.	Human immunodeficiency virus type 1.	ENV	01-DEC-2001 (Trembirel, 19, Last annotation update)	(TrEMBLrel. 01,	01-NOV-1996 (TrEMBLrel. 01, Created)	080161 PRELIMINARY; PRT; 853 AA.		CT 1	
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	Search completed: May 16, 2003, 11:13:31 Job time : 6.07229 secs	Db 643 YTSLIHSLIBESQNQQEKNEQELLELDKWASLWNWF 678	Qy 1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36	Best Local Similarity 86.1%; Pred. No. 9.3e-14; Matches 31; Conservative 4; Mismatches 1; Indels 0; Gaps 0;	
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RESULT
ENV_HVI
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                                      ENV_HVIBR STANDARD; PRT; 861

TO ENV_HVIBR STANDARD; PRT; 861

AC P03377;

TO 21-JUL-1986 (Rel. 01, Created)

TO 21-JUL-1996 (Rel. 01, Last sequence updated)

TO 15-JUL-1996 (Rel. 38, Last annotation updated)

Envelope polyprotein GP160 precursor (CCC)

Envelope polyprotein (GP120); Transmembrane glycon
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=85099333; PubMed=2981635; Wain-Hobson S., Sonigo P., Danos "Nucleotide sequence of the AIDS Cell 40:9-17(1985).
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RESULT
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V_HV1H3
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P04624;
13-AUG-1987
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                                                                                                                 Pfam; PF00516; GP120; Pfam; PF00517; GP41;
                                                                                                                                  InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                    HIV; M14100;
                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                antibodies present in Cell 41:979-986(1985).
                                                                                                                                                                                                                                                        "HTLV-III env gene products synthesized in E. coli
antibodies present in the sera of AIDS patients.";
                                                                                                                                                                                                                                                                                   Crowl R., Ganguly
                                                                                                                                                                                                                                                                                           MEDLINE=85228248;
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                                                                                                                                                                            send an email to license@isb-sib.ch).
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G.M., Wong-Staal F., Reddy E.P.
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                                                                                                        Coat
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86.1%;
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GP160 precursor [Contains: Exterior membrane; Transmembrane glycoprotein (GP41)].
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Q70626;
15-JUL-1998
15-JUL-1998
15-JUL-1999
                         modified entities
                                                                                    MEDLINE-95127297; PubMed-7826699;
Reitz M.S. Jr., Hall L., Robert-Guroff M., Laute Shaw G.M., Kong L.I., Weiss S.H., Waters D., Gal "Viral variability and serum antibody response infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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                                                 SWISS-PROT entry is copyright. It is produced througen the Swiss Institute of Bioinformatics and the European Bioinformatics Institute. There are no re
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              non-profit institutions as long and this statement is not removed. s requires a license agreement (See lan email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                           998 (Rel. 36, Created)
998 (Rel. 36, Last sequence update)
999 (Rel. 38, Last annotation update)
999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains:
polyprotein (GP120); Transmembrane glycoprotein
                                                                                                                                                                    Retroid
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AAA76690.1;
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                                                                                                      Lautenberger J., Hahn B.M., ., Gallo R.C., Blattner W.; onse in a laboratory worker
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n (GP41)].
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RESULT 12
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30-MAY-2000 (Re
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15-JUL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
glycoprotein (GP120); Transmembrane glycoproteir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00516; GP120; Pfam; PF00517; GP41;
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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Ratner L., Fisher A.,
Gallo R.C., Wong-Staa
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MEDLINE=87299196; PubMed=3040055;
Ratner L., Fisher A., Jagodzinski L.L.,
Gallo R.C., Wong-Staal F.;
                                                                                                                                                                                                                                                                              CARBOHYD
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NCBI_TaxID=11706;
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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Polyprotein;
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l F.;
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BY SIMILARITY.
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RESULT 10
ENV_HV1OY
     Query Match
Best Local Similarity
Matches 31; Conser
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P20888;
01-FEB-1991
01-FEB-1991
15-JUL-1999
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AIDS;
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HIV; 1
                                                                                                                                                                                                                                                                  the European Bioinformatics Institute. The use by non-profit institutions as not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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Huet T., Dazza M.C., Brun-Vezinet F., Roelants G.
"A highly defective HIV-1 strain isolated from a
individual presenting an atypical western blot.";
AIDS 3:707-715(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence up
15-JUL-1999 (Rel. 38, Last annotation
Envelope polyprotein GP160 precursor |
glycoprotein (GP120); Transmembrane gl
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InterPro; IPR000777; GP120.
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Viruses; Retroid viruses; Retroviridae;
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; PF00517; GP41; 1
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DISULFIDE BONDS, AND CARBOHYDRATE-LINKA MEDLINE=90285159; PubMed=2355006; Leonard C.K., Spellman M.W., Riddle L., Gregory T.J.; "Intrachain disulfide bon potential glycosylation sites of the ty immunodeficiency virus envelope glycopr Chinese hamster ovary cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: 91ycoprotein (GP120): Transmembrane glycoproteir
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P03375;
21-JUL-1986
21-JUL-1986
15-JUL-1999
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Josephs S.F., Doran E.R., Rafalski JA., Whitehorn
Baumeister K., Ivanoff L., Petteway S.R. Jr., Pears
Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.
Wong Staal F.;
"Complete nucleotide sequence of the AIDS virus, HT
Nature 313:277-284(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; Retroid
NCBI_TaxID=11678;
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MEDLINE=85111123; PubMed=2578615;
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159; PubMed=2355006;
Spellman M.W., Riddle L., Ha
265:10373-10382(1990)
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Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn
Baumeister K., Ivanoff L., Petteway S.R. Jr., Pears
Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.
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polyprotein GP160 precursor [Contains: Exterior membrane
tein (GP120); Transmembrane glycoprotein (GP41)].
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Starcich B.R., Parks W.P., Josephs S.F., Gallo R.C., V
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               HIV; M17451; ENV$RF. InterPro; IPR000328; InterPro; IPR000777;
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NCBI_TaxID=11701;
                                                                                   EMBL; M17451; AAA45057.1;
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987 (Rel. 05, Last sequence update)
987 (Rel. 38, Last annotation update)
999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains: Exterior:
tein (GP120); Transmembrane glycoprotein (GP41)].
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01-0CT-1989 (Rel. 12, Created)
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Eglycoprotein (GP120); Transmembrane glycoprotein
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AIDS; Coat pro
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Viruses; Retroid viruses;
NCBI_TaxID=11702;
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Exterior:
glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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01-NOV-1988 (Rel.
15-JUL-1999 (Rel.
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InterPro; IPR000777;
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M17450; ENV$SC
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VCLJSC
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Env_GP41.
GP120.
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es; Retroviridae; Lentivirus.
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SEQUENCE FROM N.A.
MEDLIND-#86218077; PubMed-2423250;
MEDLIND-#86218077; PubMed-2423250;
Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,
Starcich B.R., Hahn B.H., Josephs S.F., Gallo R.C., 1
Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., 1
Tidentification and characterization of conserved
"Identification and characterization of conserved"
The envelope gene of HTLV-III/LAV, the
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P31872;
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01-JUL-1993 (Rel. 26, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
glycoprotein (GP120); Transmembrane glycoproteir
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Signal
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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InterPro; IPR000777; GP120.
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PF00517;
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GP41; 1
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EXTERIOR MEMBRANE GLYCC
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InterPro; IPR000338; ENV_GP41.

InterPro; IPR000777; GP120.

Pfam; PF00516; GP120; 1.

Pfam; PF00517; GP41; 1.
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01-FEB-1991 (Rel. 17, I
16-OCT-2001 (Rel. 40, L
Envelope polyprotein GP
91ycoprotein (GP120); TI
ENV.
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p19549;
01-FEB-1991
01-FEB-1991
16-OCT-2001
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            immunodeficiency virus
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InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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## ALIGNMENTS

TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	RESCONDE DE LENGUES DE
EMBL; K02007; AAB59882:1; PITE; A03976; VCLJA2. HIV; K02007; ENV\$SF2. InterPro; IPR000338; Env_GP41 InterPro; IPR000338; Env_GP41 InterPro; IPR000777; GP120. Pfam; PF00516; GP120; 1. Pfam; PF00516; GP120; 1. Pfam; PF00517; GP120; 1. Pfam; PF00517; GP41; 1. AIDS; Coat protein; Polyprote Signal. 30 509 CHAIN 30 509 CHAIN 30 509 CHAIN 510 855 DISULFID 53 73 DISULFID 118 208 DISULFID 125 199 DISULFID 125 199 DISULFID 221 250 DISULFID 221 250 DISULFID 231 242 DISULFID 231 242 DISULFID 380 442 DISULFID 380 442 DISULFID 387 415 CARBOHYD 129 129 CARBOHYD 154 154	RESULT 1  ENV_HV1A2  STANDARD; PRT; 855 AA. AC P03378; AC P03378; DT 21-JUL-1986 (Rel. 01, Last sequence update) DT 21-JUL-1996 (Rel. 38, Last annotation update) DT 15-JUL-1999 (Rel. 38, Last annotation update) DE Envelope polyprotein GP160 precursor [Contain g1ycoprotein (GP120); Transmembrane glycoprotein Envelope; Retroid viruses; Retroviridae; Lenticox NCBL_TAXID=11685; RN [1] RN SEQUENCE FROM N.A. Sunchez-Pescador R., Power M.D., Barr P.J., S. RA Sanchez-Pescador R., Power M.D., Barr P.J., S. RA Sanchez-Pescad
K02007; AAB59882.1 (02007; EVCLYA2. (02007; EVCSF2. (02007; EVCSF2. (02007; ERQO0328; Env PFO)516; GP41; 1. (0201 PFO0517; GP41; GP41; 1. (0201 PFO0517; GP41; GP4	986 (Rel. 01, 986 (Rel. 01, 986 (Rel. 01, 999 (Rel. 38, polyprotein tein (GP120); munodeficienc Retroid viru ID=11685; FROM N.A. 900453; Pub 9escador R., M.M., Brown M.M., Brown Dina D. Lide sequence 1, Dina D. Lide sequence 227:484-492(127:484-4
9882.1;	JUL-1986 (Rel. 01, Created) JUL-1986 (Rel. 01, Last sequence up JUL-1986 (Rel. 01, Last sequence up JUL-1999 (Rel. 38, Last annotation elope polyprotein GP160 precursor [ coprotein (GP120); Transmembrane 91 an immunodeficiency virus type 1 (A uses; Retroid viruses; Retroviridae I_TaxID=11685;  JENCE FROM N.A. LINE=85090453; PubMed=2578227; Chez-Pescador R., Power M.D., Barr mpien M.M., Brown Shimer S.L., Gee y J.A., Dina D., Luciw P.A.; cleotide sequence and expression of y-2)."; cleotide sequence and expression of y-2)."; snce 227:484-492(1985).  s SWISS-PROT entry is copyright. Inf European Bioinformatics Institute by non-profit institutions as I fied and this statement is not rem lies requires a license agreement
L.  Sin; Glycoprotein; EXTERIOR MEMBRANE TRANSMEMBRANE GLY BY SIMILARITY. N-LINKED (GLCNAC. N-LINKED (GLCNAC. N-LINKED (GLCNAC. N-LINKED (GLCNAC.	Created) Last sequence update) Last sequence update) Last sequence update Last annotation update Filipho precursor [Contai Transmembrane 9lycopro virus type 1 (ARV2/SF es; Retroviridae; Lent ower M.D., Barr P.J., fower M.D., Barr P.J., ciw P.A., ciw P.A., risting for an AI mod expression of an AI is copyright. It is printitute of Bioinformatiatics Institute. Ther articular is not removed, censee agreement (See h censee agreement (See h
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membrane;  PROTEIN.  EIN.  (POTENTIAL).  (POTENTIAL).  (POTENTIAL).	pdate) update) update) [Contains: Exterior membrane lycoprotein (GP41)].  ARV2/SF2 isolate) (HIV-1). e: Lentivirus.  P.J., Steimer K.S., W.W., Renard A., Randolph A.,  F an AIDS-associated retrovirus

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R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W. submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid A;Reference number: S21990
A;Accession: S22000
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A;Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid as determ
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R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
AIDS Res. Hum. Retroviruses 8, 53-59, 1992
                                                                                                                                                                                              envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 3B) C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: patient 3B
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A; Molecule
                                         A; Reference number: A; Accession: S70417
                                                              R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency virus type 1 in blood and A;Reference number: S70417; MUID:92144209; PMID:1736940
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Residues: 1-358 <STE>
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                                                                                                                                                                                                                                                                                                                                                                     YTSLIYTLIEESQNQQEKNEQDLLELDKWDSLWNWF 175
preliminary
> type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        type E retrovirus env polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      88.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 176; DB 2;
Pred. No. 1.3e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 176; DB 2; Pred. No. 1.3e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
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R:Carlini, F.
submitted to the EMBL Data Library, November 1991
A:Reference number: $33979
                                    QΥ
                                                                                                                                                                                                                                                                                                                                                                    env polyprotein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                       S33985
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밁
                                                                                                                                                         C; Superfamily: type E
                                                                                                                                                                                                                                                                 A; Reference number: A; Accession: S33985
                                                                                                                                                                                                                                                                                                                                                   C; Accession: S33985
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                                                                                                                                                           A;Cross-references: EMBL:Z11530; NID:g60192; PIDN:CAA77628.1; PID:g60199
C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                  A; Molecule type: mRNA
A; Residues: 1-851 < CAR>
                                                                                                                                                                                                                                           A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                             Query Match 88.9%;
Best Local Similarity 86.1%;
Matches 31; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140 YTSLIYTLIEESQNQQEKNEQDLLELDKWDSLWNWF 175
633 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 668
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nes 31; Conserv
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                     YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
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86.1%;
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Pred. No. 1.3e-13;
3; Mismatches 2;
                                                                             Score 176; DB 2;
Pred. No. 3.4e-13;
4; Mismatches 1
                                                                                                                  Length 851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 358
                                                                                  Indels
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Search completed: May 16, 2003, 11:25:05 Job time : 12.1446 secs

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to the

EMBL Data Library, July

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C;Superfamily: type E retrovirus env polyprotein (2;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immu F;1-251/Product: coat protein gpl20 (fragment) #status predicted < F;252-443/Product: coat protein gp41 (fragment) #status predicted F;424-443/Domain: transmembrane #status predicted <TMN> F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,36
                                                                                                                                                                                                                                                                        R:Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguyen, P.N.; Gibbs, R.A. Proc. Natl. Acad. Sci. U.S.A. 88. 1236-11240, 1991
A;Title: Evolution of human immunodeficiency virus type 1 nucleotide sequenc A;Reference number: A41621; MUID:92107924; PMID:1763038
                                                                                                                                                                   A;Cross-references: GB:M77230; NID:g328631; PIDN:AAB03792.1; PID:g555015 A;Note: this virus was isolated from the mother's sexual partner
                                                                                                                            A;Gene: env
                                                                                                                                                                                                                                 A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                     N;Alternate names: coat polyprotein
N;Contains: amino end of coat protein gp41; carboxyl end
N;Contains: human immunodeficiency virus type 1, HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: DNA
A;Residues: 1-222,'X',224-358 <STE2>
A;Cross-references: EMBL:X61359; NID:g60182; PID:
C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-99, 1992 A:Title: Distinct populations of human immunodeficiency A:Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 20 Feb-1995 #sequence_revision 20 Feb-1995 #text_change C;Accession: S21998; S70425
                                                                                                                                                                                                            A; Residues: 1-443 <BUR>
                                                                                                                                                                                                                                                       A; Accession: C41621
                                                                                                                                                                                                                                                                                                                                                                       A; Note: host Homo sapiens (man)
C; Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
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C; Superfamily: type E
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Best L
                                                                                                                                                                                                                                                                                                                                                        Accession: C41621
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Date: 20-Feb-1995 #sequence_revision; Accession: S21998; S70425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          teuler, H.; Storch-Hagenlocher, B.; Wildemann, mitted to the EMBL Data Library, July 1991 escription: Distinct populations of HIV-1 in blackerence number: S21990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91.9%;
Similarity '88.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human immunodeficiency virus type 1 (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             populations of HIV-1 in blood and cerebrospinal fluid as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92.4%;
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Pred. No. 2
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l; Mismatches
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203,351,356,365,377/Binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 358;
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C;Species: human immunouerrection c;Date: 20-Reb-1995 #sequence_revision C;Accession: $70420; $22006
                                                                                                                                             A; Note: submitt C; Superfamily:
                                                                                                                                                             A;Cross-references: EMBL:X61354; NID:g60190
A;Experimental source: patient L
A;Note: submitted to the EMBL Data Library,
                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-357 <ST2>
                                                                                                                                                                                                                                                                     A; Reference number: A; Accession: S70420
                                                                                                                                                                                                                                                                                      AIDS Res. Hum. Retroviruses 8, 53-59, 1
A; Title: Distinct populations of human
A; Reference number: S70417; MUID:921442
                                                                                                                                                                                                                                                                                                                                    R;Steuler, H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: env C;Superfamily: type E retrovirus env polyprotein C;Superfamily: type E retrovirus env polyprotein; transmeml C;Keywords: coat protein; glycoprotein; polyprotein; transmeml F;1-29/Domain: signal sequence #status predicted <SIG>F;30-501/Product: coat protein gp120 #status predicted <GP1>F;502-847/Product: coat protein gp41 #status predicted <GP2>F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,
                                                                                                                                                                                                                                                 A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Reference number: A24
A;Accession: A24774
A;Molecule type: DNA
A;Residues: 1-856 <STA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Accession: A24774
R;Starcich, B.R.; Hahn,
Cell 45, 637-648, 1986
                                                                                                                                                                                                                                                                                                                                                                                              envelope protein gp120/gp41 - human immunodeficiency virus C; Species: human immunodeficiency virus type 1, HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Cross-references: C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Title: Identification and A; Reference number: A24774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-1988 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N; Contains:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        env polyprotein precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VCLJ3W
                                                                                                           Query Match
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Best Local S
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                                                                                          Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 YTNTIYTLLEESQNQQEKNEQELLELDXWASLWNWF
YTDLIYTLIEESQNQQEKNEQELLALDKWANLWNWF
                                   YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                             type E retrovirus
                                                                                                                                                                                                                                                                                                                                            Storch-Hagenlocher, B.;
                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                         88.9%;
86.1%;
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                                                                                                                                                                                                                                                                                          MUID:92144209;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shaw,
                                                                                                                                                                                                                                                                                                                           53-59, 1992
                                                                                                                                             env polyprotein
                                                                                                                                                                                                 NID: g60190;
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                                                                                         Score 176; DB 2; Pred. No. 1.3e-13
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Pred.
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                                                                      Mismatches
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                                                                                                                                                                                                                                                                                      immunodeficiency
209; PMID:1736940
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                                                                                                                                                             July
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.3e-14;
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envelope protein gp120/gp41 - human immu
C;Species: human immunodeficiency virus
A;Variety: isolate 27B
C;Date: 20-Feb-1995 #sequence_revision 2
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C:Species: human immunodeficiency virus type 1, HIV-1
C:Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
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Virology 164, 531-536, 1988
A;Title: Envelope sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Note: host Homo sapiens (man)
C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 16-Feb-1997
C;Accession: B28922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              env polyprotein precursor - human in N; Alternate names: coat polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
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Nature 348, 69-73, 1990
                                                                         S21994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Superfamily: type E retrovirus
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A; Residues: 1-847 <OBR>
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Best Local
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sidues: 1-861 <GUR>
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                                                                                                                                            1 Similarity
33; Conserv
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33; Conservative
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 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
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                                                                                                                                                                                                                                  93.4%;
91.7%;
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91.7%;
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91.7%;
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                                   human immunodeficiency virus ency virus type 1, HIV-1
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Pred. No. 2.8e-14;
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Pred. No. 2.
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Pred. No. 2.9e-14;
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?; Mismatches
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     A; Experimental source:
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A;Cross-references: EMBL:X61355; NID:g60179; PIDN:CAA436 R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992 A;Title: Distinct populations of human immunodeficiency A;Reference number: S70417; MUID:92144209; PMID:1736940 A;Accession: S70421
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R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood A;Reference number: S21990
A;Accession: S21994
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A;Residues: 1-140,'X',142-312,'X',314-357 <STE2>
A;Cross-references: EMBL:X61355; NID:g60179
C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                 envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999 C;Accession: S70424; S21992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Note: submitted to the EMBL Data Library, July C; Superfamily: type E retrovirus env polyprotein
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A; Accession: S70422
A; Status: preliminary
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A; Title: Distinct populations of human immunodeficiency
A; Reference number: S70417; MUID:92144209; PMID:1736940
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C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 20-Feb_1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
             A; Molecule type: DNA
A; Residues: 1-357 <ST2>
A; Cross-references: EMB
                                                                                                                                                                                          R; Steuler, H.;
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A; Residues: 1-357 <ST2>
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A; Residues: 1-357 <STE1>
                                                                                                        A; Reference number: A; Accession: S70424
                                                                                                                                                  A; Title: Distinct populations of human
                                                                                 A; Status: preliminary
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envelope

A;Gene: env C;Superfamily: type E

retrovirus env polyprotein

A;Cross-references: EMBL:U63632; NID:g1465777; C;Genetics:

PID: g1465781

A; Molecule type: DNA A; Residues: 1-847 <PAN>

envelope glycoprotein - human immunodeficiency virus type 1 (strain JRFL) C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 16-Jul-1999 #sequence\_revision 16-Jul-1999 #text\_change 24-Nov-1999 C;Accession: T09448 R;Pang, S:; Vinters, H.V.; Akashi, T.; O'Brien, W.A.; Chen, I.S.; Koyanagi, submitted to the EMBL Data Library, July 1996 A;Reference number: 216673 A;Accession: T09448 A;Status: preliminary; translated from GB/EMBL/DDBJ A;Status: preliminary; translated from GB/EMBL/DDBJ

Akashi, T.; O'Brien, W.A.; Chen, I.S.; Koyanagi, Y.; Library, July 1996

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RESULT T09448

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QY 1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36	Query Match  100.0%; Score 198; DB  Best Local Similarity 100.0%; Pred. No. 7.9e-  Matches 36; Conservative 0; Mismatches	F;1-9/Domain: signal sequence #status predicted <sig>F;31-50/Product: exterior membrane glycoprotein #status predicted <ext>F;310-855/Product: transmembrane glycoprotein #status predicted <tmm>F;510-855/Product: transmembrane glycoprotein #status predicted <tmm>F;87,129,140,158,184,190,200,244,265,292,298,304,334,341,358,364,388,394,400,408,44F;610,624,636,815/Binding site: carbohydrate (Asn) (covalent) #status predicted</tmm></tmm></ext></sig>	C; Genetics: A; Gene: env C; Superfamily: type E retrovirus env polyprotein C; Keywords: AIDS; capsid protein; coat protein; g;	A;ACCESSION: AU39/0 A;Molecule type: DNA A;Residues: 1-855 <san> A;Cross-references: GB:K02007; NID:g328658; PIDN:</san>	A;TitLe: Nucleotlde sequence and expression of an AIDS-A;Tetle: Nucleotlde sequence and expression of an AIDS-A;Reference number: A04003; MUID:85090453; PMID:2578227	C;Accession: A03976 R;Sanchez-Pescador, R.; Power, M.D.; Barr, P.J.;	munodeficiency virus type 1, apiens (man) #sequence_revision 17-May-19	RESULT 1 VCLJA2 env polyprotein precursor - human immunodeficiency virus N:Alternate names: coat polyprotein	ALIGNMENTS	87 43. 87 43. 86 43. 86 43.	67.2 877 2 62.6 863 2 43.9 881 1	156 78.8 854 1 150 75.8 856 1 146 73 7 357 2	162 81.8 136 2 162 81.8 136 2	167 84.3 856 1 167 84.3 868 1 166 83 8 850 2	167 84.3 846
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AAY89136;

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The invention relates to hybrid polypeptides comprising enhancer peptide consequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (9941) protein sequences, comparisally from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the polypeptide that they are linked to. The enhancer peptides enhance the polypeptide that may be introduced into a living system and that can core polypeptide that may be introduced into a living system and that can core polypeptides are bloactive peptides of the treatment or prevention of a disease. The core polypeptides are bloactive peptides contected from a growth factor, cytokine, differentiation factor, colony stimulating factor, hormone or confidence interferon, colony stimulating factor, hormone or confidence in treatments. Sequences ANY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends confidence in the confidence of the invention.
Query Match 97.0
Best Local Similarity 97.2
Matches 35; Conservative
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  Score 191; DB 21;
Pred. No. 3e-17;
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Best Local
                                                                                                           function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interfeukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusgenic treatments. Sequences AAY88651-y9005 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                         The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core
                                                                  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                          A new hybrid polypeptide with enhanced comprises enhancer sequence -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-136792/12
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                                                                                                                                                                                                                                                            polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Barney S,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TRIM-) TRIMERIS INC
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     35;
                    Similarity
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                                                                                               hybrid polypeptides.
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Pred. No. 3e-17;
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RESULT 15
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AAY89136 standard;

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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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                                                                                                                                                 interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusquenic treatments. Sequences AAV88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                 The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1 HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide are bloactive peptides selected from a growth factor, cytokine, differentiation factor,
                                                                                                     Sequence
                                                                                                                                    and form hybrid polypeptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein HIV-2; SIV; pharmacokinettc; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon; colony stimulating factor; hormone; angiogenic factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
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YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                   Conservative
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                                                   97.0%;
97.2%;
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                                                 Score 191; DB 2
Pred. No. 3e-17;
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or the gp41 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three gp41 proteins. The peptides can be administered either singly or as a combination (particularly a combination of N-helical and C-helical peptides), and can be multimerised. For example, N- and C-helical domain peptides can be alternately linked together to form a peptide which mimics the core 6-helix bundle. Administration of the peptide(s) generates a humoral response, with the production of antibodies against gp41 structures involved in viral entry. As these portions of gp41 are well conserved, such antibodies may be effective against a broad range of
                                                                                                                                                                                          sequences AAB14532-B14534 and AAB14569-B14602 represent specifically claimed peptides derived from the C-helical domain of the gp41 envelope glycoprotein from a variety of HTV-1 isolates. The invention relates to raising a neutralising antibody response to a broad spectrum of HTV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or mimics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or mimic the coiled coil solution structure of the N-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), and the coiled coil solution structure of the N-helical segment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Raising neutralizing antibody response to human immunodeficiency virus, comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
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core 6-helix bundle; viral entry inhibition; immunogenic;
antibody; humoral response; broad spectrum vaccine; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-465959/40
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07-JAN-2000; 2000US-0480336.
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35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 12; 97pp; English.
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97.2%;
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Pred. No. 3e-17;
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RESULT 12
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                                                                               selected from a growth factor, cytokine, differentiation factor, interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent comparisons to the colonial 
                                                                                                                                                                                                                                                                                                                                                         The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core
                   anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A new hybrid polypeptide with enhanced comprises enhancer sequence -
                                                                                                                                                                                                                                    polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Core polypeptide fragment T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-MAY-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 21; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
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35; Conser
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hormone; angiogenic factor.
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Pred. No. 3e-17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pharmacokinetic properties
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                    AAB52688 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178
                        Wang JM,
                                                                        05-MAY-1999;
                                                                                                                                                                     Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                      23-FEB-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                     Antiinflammatory;
                                                                                                                                                                                                                                            T20/DP178 peptide
                                                                                                                                                                                                       Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation;
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                                                                                               2000WO-US12371
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                                                                       9905-0132686
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                                                                                                                                                                                                                                              fragment #66.
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Pred. No. 3e-1
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                      Gong W,
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                      Murphy PM;
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                            The present sequence is a peptide fragment of T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41 T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain gp41 plays a critical role in the fusion of HIV-1 and host cell membranes T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes
(but not T confined inflammatory
                                                                                                                                                        Claim 14;
                                                                                                                                                                                       Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation
                                                                                                                                                                                                                                                                             Wang JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response
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            T cells).
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The present peptide can be used to modulate an use in a subject.
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97.2%;
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Best Local :
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                                                                                                                                                                                                                            The present sequence represents an N- and C-terminal modified peptide, designated T-20 (or DP-178), corresponding to amino acids 638-673 of the transmembrane protein gp41 of HIV-1 LAI isolate. The invention relates to methods for the synthesis of peptides, in particular T-20 and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T20-like peptide, followed by deprotection of the side chains to yield the final T-20 or T-20-like peptide. The invention
                                                                                                                                                      also relates to individual peptide fragments (see AAY31956-73) which act as intermediates in the synthesis of peptides of interest (e.g. T-20), and to particular groups of peptide fragments which act as intermediates in the synthesis of the peptide of interest. The method allows for the large scale, economical production of high
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TRIM-)
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01-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic peptide T-20 (DP-178).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY31955 standard; Peptide;
                                                                                                                                           purity peptides.
                                                                     Local Similarity
Н
               YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                         of peptide synthesis,
ke peptides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRIMERIS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bray B,
                                                                                                                 36 AA;
                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0045920
98US-0071877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US06230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lichty M,
                                                                    97.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36 AA
                                                         0;
                                                                     Score 191; DB 2
Pred. No. 3e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mader
                                                                                                                                                                                                                                                                                                                                                                                                                                       particularly used to produce T-20 or
                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Merutka
                                                                                     DB 20;
                                                         1;
                                                                                   Length
                                                         Indels
                                                         0;
                                                        Gaps
                                                         0;
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RESULT 7 AAY31974

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RESULT 8
AAB52655
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PA
XX
                                                                                                                                                                                                                                                                                                                                                      The present sequence represents a peptide, designated T-20 (or LDP-178), that corresponds to amino acids 638-673 of the transmembrane protein gp41 of HIV1 LAI isolate. The invention relates to methods for the synthesis of peptides, in particular C - and N-terminal modified T-20 (see ANY31955) and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates (see ANY31956-73) of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T-20-like peptide. The invention also relates to individual peptide fragments which act as intermediates in the synthesis of peptide fragments which act as intermediates in the synthesis of peptide fragments which act as intermediates in the synthesis of the peptide of interest. The method allows for the large scale,
                                                                                                                                                                                                                                                                         Query Match
Best Local S
                                                                                                                                                                                                                                                               Matches
Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation; chemoattractant.
                                                                                                            AAB52655;
                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Methods of peptide synthesis, particularly used T-20 like peptides \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-591038/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV-1 LAI gp41 T-20 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY31974 standard; Peptide; 36
                                                      T20/DP178 peptide fragment #33.
                                                                                 23-FEB-2001
                                                                                                                                      AAB52655 standard;
                                                                                                                                                                                                                                                                                                                                            economical production of high purity peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                                                                                       YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                        YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                              1 Similarity
35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           вгау В,
                                                                                                                                                                                                                                                                                                                   36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 9; 120pp; English.
                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0045920.
98US-0071877.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lichty M,
                                                                                                                                      Peptide;
                                                                                                                                                                                                                                                                        97.0%;
97.2%;
                                                                                                                                       36
                                                                                                                                                                                                                                                            Score 191; DB 2
Pred. No. 3e-17;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mader C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ą
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                                                                                                                                                                                                                                                                                        DB 20;
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                                                                                                                                                                                                                                                                                     Length 36;
                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                              Gaps
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P
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HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement;

SEQ ID NO.

1 from WO9820036

(first entry)

AAY22805;

AAY22805 standard; Peptide;

36

AA

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RESULT 4
AAY22912
8888888888888888888
                                                                                                                                                            Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention
                                                                                                                                                                                                                      Disclosure; Page 233-234;
                                                                                                                                                                                                                                                                                                                                                   16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            HIV: gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement;
                                                                                                                                                                                                     Peptides AAY22805-Y22917
                                                                                                                                                                                                                                         of infection
                                                                                                                                                                                                                                                                                     WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                              Braisted A,
                                                                                                                                                                                                                                                                                                                                                                             05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                 14-MAY-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                  WO9820036-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY22912;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY22912 standard; Peptide;
                                                                                                                                                                                                                                                                                                      Wells
                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunoglobulin purification; epitope mimic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    108
                                                                                                                                                                                                                                                                                                               Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                  97US-0876698.
96US-0743698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   from WO9820036
                                                                                                                                                                                                                                                                                                                                                                             97WO-US20069
                                                                                                                                                                                                                                                                                                               McDowell RS,
                                                                                                                                                                                                                     279pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36
                                                                                                                                                                                                                                                                                                                Phelan
                                                                                                                                                                                                                                                                                                               JC,
                                                                                                                                                                                                                                                                                                               Starovasnik
                                                                                                                                                                                                                                                                                                               MA;
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CC (HIV) Specifically, AAY22810 are derived from 941 proteins
CC (ATV). Specifically, AAY22810 are derived from 941 proteins
CC of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and
CC AAY22903 represent consensus sequences of various sections of the 9941
CC protein). Sequences derived from the peptides are used to produce
CC constrained helical peptides of the invention. The constrained helical
peptide is produced by synthesising an octapeptide in which both terminal
amino acids have a side-chain that includes a group able to form an amide
CC bond, and cyclising the octapeptide by reacting the specified side-chain
CC residues with a difunctional linker to produce two amide bonds.
CC The constrained helical peptides are used to treat or prevent HIV
CC infection, especially as vaccines that generate antibodies that
CC constrained helical peptides derived from several different strains of
CC constrained helical peptides derived from several different strains of
CC uses for the constrained helical peptides are in affinity purification
CC of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable forms of "floppy" peptides or proteins. are derived from Human immunodeficiency virus

36 AA

Query Match Best Local S Matches 35 1 Similarity 97.35; Conservative 97.0%; 97.2%; Score 191; DB 1 Pred. No. 3e-17; 0; Mismatches DB 19; .Length 36; 1; Indels 0;

밁 20

YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

Gaps

0;

Query Match Best Local S Matches 35

Similarity 35; Conser

Conservative

97.0%;

Score 191; DB 1 Pred. No. 3e-17; 0; Mismatches

DB 19;

Length 36 Indels

0;

Gaps

0;

Sequence

36

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망 QΥ

1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

36

AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for of synthetic antibody clones from phage display libraries, or infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention of ligands (particularly where complete binding protein is not readily HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification Disclosure; Page 143-144; 279pp; English. of infection WPI; 1998-286866/25 16-JUN-1997; 06-NOV-1996; 05-NOV-1997; Human immunodeficiency virus The constrained helical peptides are used to treat or prevent HIV Wells Braisted A, 14-MAY-1998 WO9820036-A1 (GETH ) GENENTECH INC. immunoglobulin purification; epitope mimic. of "floppy" Judice JK, 97US-0876698 96US-0743698 97WO-US20069 peptides McDowell RS, or. proteins. Phelan JC, Starovasnik MA; for or as stable isolation

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Barney SO, bu
                                                                                                       Barney SO, b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR64364 is designated DP-178, and corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein 9p41. It forms a putative alpha helix at the C-terminal end of the 9p41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein protein interactions, and possess anti-viral activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   assisted peptide sequence search. The peptides inhibits transmission to uninfected cells, and can also be used as type and/or subtype specific
          Disclosure;
                                   Inhibiting viral transmission, e.g. HIV or isolated peptide recognised by an ALLMOTI5, sequence search motif
                                                                                     WPI; 1996-309517/31.
                                                                                                                                                                                    06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                                                           WO9619495-A1
                                                                                                                                                                                                                                                                                                 Human immunodeficiency
                                                                                                                                                                                                                                                                                                                                         Antifusogenic ALLMOTIS; 107;
                                                                                                                                                                                                                                                                                                                                                                           DP178 corresponds to residues 638-673 of HIV-1(LAI) gp41
                                                                                                                                                                                                                                                                                                                                                                                                      17-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                              AAR98398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR98398 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV transmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Computer search generated synthetic peptides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1995-036105/05
                                                                                                                                                                                                                                                 27-JUN-1996
                                                                                                                                                                                                                                                                                                                           influenza virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYDU-) UNIV DUKE
                                                                                                                                                                                                                        20-DEC-1995;
                                                                                                                                                (UYDU-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35; Conserv
                                                                                                                                                TRIMERIS INC.
                                                                                                                                                                                                                                                                                                                         enic activity; antiviral capability; coiled-coil pe
107x178x4; PLZIP search motif; viral transmission;
virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36
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          Fig
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Wild CT;
                                                                                                           Bolognesi DP,
Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΑA;
                                                                                                                                                                                  95US-0470896
94US-0360107
                                                                                                                                                                                                                        95WO-US16733
          <u>ب</u>
         471pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   182pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97.0%;
97.2%;
                                                                                                                                                                                                                                                                                                 virus type
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                                                                                                           Lambert DM,
Wild CT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     36
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DM,
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                                                                                                                       Langlois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 16;
                                                         RSV, to a cell - using
                                               107x178x4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       are inhibitors of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŢŢ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                or PLZIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36;
                                                                                                                                                                                                                                                                                                                                       peptide;
on; HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
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YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

36

Matches

Local Similarity les 35; Conser

Conservative

Mismatches

Indels

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RESULT 3
AAW17011
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                                              B
Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                     AAWI7011 represents a peptide designated DP-178, a peptide derived from HIV type 1 glycoprotein 41 (gp41) transmembrane protein. The peptide corresponds to residues 638-673 of gp41. DP-178 and its derivatives are used in combination with a therapeutic agent, e.g. a reverse transcriptase, viral protease, cytokine, glycosylation or viral mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting transmission. They may also be used in vaccines for protecting against HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequences given in AAR98398-408 represent peptides which exhibit antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide structures. These peptides are recognised by the ALLMOTIS, 107x178x4 and PLZIP search motifs. These peptides may be used to inhibit the transmission of a virus, pref. HIV, influenza virus, or hepatitis B virus, to a cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HIV; SIV: human; simian immunodeficiency virus; transmembrane; antiviral; DP-178; DP-107; vaccir replication; transmission.
                                            Sequence
                                                                                                                                                                                                         Claim 2;
                                                                                                                                                                                                                                   therapeutic agent - useful for treatment of HIV infection, inhibiting replication or transmission of {\tt HIV}.
                                                                                                                                                                                                                                                                  Compsns. contg. DP-178 or DP-107 in combination with other
                                                                                                                                                                                                                                                                                                                                                                                        07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIV-1 derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                 WPI; 1997-099886/09
                                                                                                                                                                                                                                                                                                                                                          (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                     06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9640191-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1 LAI isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW17011 standard; peptide;
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Pred. No. 3e-17;
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Maximum Match 100%
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AAY22805
AAY31955
AAY31974
AAB52655
AAB52688
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  Synthetic
HIV-1 LAI
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T20/DP178
T20/DP178
                                                                                                                                                                                                                         Description
                                                                                                  SEQ
                                                                                                                                              HIV-1
                                                                                                                                                              DP-178 derived fro DP178 corresponds
V-1 derived pept
Q ID NO. 108 fro
Q ID NO. 1 from
nthetic peptide
V-1 LAI gp41 T-2
V-1P178 peptide
0/DP178 peptide
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45	44	43	42	41	40	39	38	37	36	3 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
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ABB01449	₿	139	B0139	BB0118	0114	вв0110	83	062	вв0062	BB0062	060	вв0049	049	800	800	002	w	296	074	AAU70179	003	999	998	998	8977	8973	8969	8942	8924	8913	8913	8872	8866	AAB14533
HIV-1 gp41 DP178 p	1 DP178/107-	l DP178/107-1	iral DP178/107-1	rescein-labe	1 DP178/107-	1 DP178/107-1	1 DP178/107-	L DP178/107-	1 DP178/107-1	1 DP178/107-1	-	DP178/107-1	L DP178/107-1	_	in-labelled H	l gp41 peptid	gp41 peptid		₫	<	ore polypeptide	peptide	e polypeptide	e polypept	e polypeptide	polypeptide	e polypeptide	ore polypeptide	re polypeptide	HIV-1 isolate LAI				

### ALIGNMENTS

AAR64364 RESULT 1 07-JUN-1993; 07-JUN-1994; antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI; human immunodeficiency virus; transmembrane protein; gp41; alpha helix; leucine zipper; DP-185. WO9428920-A Synthetic. DP-178 derived from HIV-1 isolate LAI has antiviral activity. AAR64364; AAR64364 standard; Peptide; 36 22-DEC-1994 Modified-site 24-AUG-1995 (first entry) Modified-site 9308-0073028 94WO-US05739 38 /note= "optionally has an amino, acetyl,
 9-fluorenylmethoxy-carbonyl, hydrophobic or,
 macromolecular carrier gp. attached" /note= Location/Qualifiers "optionally has a or macromolecular ΑĀ carboxyl, amido, hydrophobic
carrier gp. attached"

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APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
FILE REFERENCE: ALBRE-22
CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: PATENTIN Ver: 2.1
SEQ ID NO 82
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                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 100.0%; Score 179; DB 9; Length 232; Best Local Similarity 100.0%; Pred. No. 3.8e-14; tches 33; Conservative 0; Mismatches 0; Indels
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       FILE REFERENCE: ALBRE-22
CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT PILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 81
LENGTH: 232
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BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 82, Application US/10059271
Publication No. US20030082208A1
GENERAL INFORMATION:
APPLICANT: REPKE, HEINRICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Artificial Sequence
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Best Local Similarity 100.
Matches 33; Conservative
TITLE OF INVENTION:
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US-10-059-271-82
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Search completed: May 16, 2003, 12:10:24 Job time : 15.4458 secs

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Result
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Gapop 10.0 ,
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195
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  GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
  DB
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S72407
VCLJA2
S22002
S72407
H44001
VCLJA2
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env polyprotein -
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envelope protein g
envelope protein g
envelope protein g
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env polyprotein m
env polyprotein m
env polyprotein g
envelope protein g
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RESULT VCLJH3

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RESULT 2  \$13288 env protein - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text. C;Accession: \$13288 R;O'Brien, W.A.; Koyanaqi, Y.; Namazie, A.; Zhao, J.Q.; I Nature 348, 69-73, 1990 A;Title: HIV-1 tropism for mononuclear phagocytes can be A;Reference number: \$13288; MUID:91043044; PMID:2172833 A;Accession: \$13288 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-854 <obr> C;Superfamily: type E retrovirus env polyprotein Query Match Best Local Similarity 97.2%; Pred. No. 3.3e-15; Matches 35; Conservative 1; Mismatches 0; I</obr>	protein - human immunodeficiency virus type s: human immunodeficiency virus type 1, HIV 19-Mar-1997 #sequence_revision 19-Mar-1997 ion: S33985 i, F. S33985 ion: S33985 ii preliminary le type: mRNA es: 1-851 <car> le type: mRNA es: EMBL.Z11530; NID:960192; PIDN:C amily: type E retrovirus env polyprotein amily: type E retrovirus env polyprotein scal Similarity 97.2%; Pred. No. 3.3e-15 s 35; Conservative 1; Mismatches 1 YTSIIHSLIEESQNQOEKNEQELLELDKWASLWNWF 36                                    </car>	30 166 85.1 729 1 VCLJKX 31 166 85.1 861 1 VCLJKB 31 164 84.1 454 2 B41621 32 164 84.1 454 2 B41621 33 161 82.6 868 1 VCLJH4 34 158 81.0 136 2 JT0954 35 158 81.0 136 2 JT0954 36 151 77.4 856 1 A44963 37 150 76.9 854 1 VCLJSI 38 145 74.4 357 2 S21990 39 136 69.7 877 2 S49197 40 119 61.0 863 2 A53034 41 86 44.1 881 2 S03068 42 86 44.1 881 2 S03068 43 85 43.6 151 2 S30448 45 85 43.6 151 2 S30452 ALIGNMENTS
<pre>ext_change 31-Oct-1997 .; Diagne, A.; Idler, K.; Zack, be determined by regions of gpl 33 Length 854: Indels 0; Gaps 0;</pre>	#text_change 26-Aug-1999 #text_change 26-Aug-1999 AA77628.1; PID:g60199 Length 851; ; Indels 0; Gaps 0;	env polyprotein prenv polyprotein prenv polyprotein prenv polyprotein - envelope polyprotein prenvelope polyprotein prenvelope protein prenvelope protein prenvelope protein prenvelope protein - env polyprotein - env polyprotein - humaenv protein

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RESULT
C41621
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nberger, J.A.; Papas, T.S
Nature 313, 277-284, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            env polyprotein precursor human immuno N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus A;Note: host Homo sapiens (man)
    env polyprotein P
N; Alternate names:
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                                                                                                                              Вр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R; Wain-Hobson, S.;
Cell 40, 9-17, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                      F;31-516/Product: exterior membrane glycoprotein #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Title: Nucleotide sequence of A; Reference number: A90866; MUII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Note: host Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N; Alternate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VCLJLV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-856 < RAT>
                                                                                                                                                                                                                                                                                          ;517-861/Product: transmembrane glycoprotein #status predicted <TMM>;88,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,41;88,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,41;616,621,630,642,679,755,821/Binding site: carbohydrate (Asn) (covalent) #status predi
                                                                                                                                                                                                                                                                                                                                                                         Superfamily: type E retrovirus env polyprotein; Keywords: AIDS; capsid protein; coat protein; i-30/Domain: signal sequence #status predicted;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Superfamily: type E retrovirus env polyprotein; keywords: AIDS; capsid protein; coat protein; 30/Domain: signal sequence #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genetics:
                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Accession: A0397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   blecule type: DNA
psidues: 1-861 <WAI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2511/Product: exterior membrane glycoprotein #status predicted <EXT>

12-856/Product: transmembrane glycoprotein #status predicted <FMM>

12-856/Product: transmembrane glycoprotein #status predicted <FMM>

18,136,141,156,160,186,197,330,234,241,262,276,289,295,301,332,339,356,386,392,397,406

11,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status predic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polyprotein precursor - human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                coss-references: GB:K02013; NID:g326417;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       638
                                                                                                                                643
                                                                                                                                                                      _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                            YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                    YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                                                                                                Similarity
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s: coat polyprotein
                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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      coat
    human immunodef
oat polyprotein
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                                                                                                                                                                                                                                                                                                                                                                           sid protein; coat protein; glycoprotein; immunodeficiency;
sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S.; Ghrayeb,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.0%;
97.2%;
                                                                                                                                                                                                                                  99
97
                     immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P.; Danos,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               e of the AIDS virus, MUID:85099333; PMII
                                                                                                                                                                                                                                .2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human
                                                                                                                                                                                                                                Score 193; DB 1; Pred. No. 3.4e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 193;
Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunodeficiency virus
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                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chang, N.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Livak, K.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cole,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PMID: 2981635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ne AIDS virus,
PMID:2578615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIDN:AAB59751.1; PID:g326424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1;
3e-15;
                                                                                                                                678
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                       type
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                                                                                                                                                                                                               0,
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                                                                                                                                                                                                                                                 Length 861;
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                       Н
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Starcich, B. Gallo, R.C.;
                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          type 1 (isolate HTLV-III,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-Jul-1999
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                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dora
N;Contains: coat protein gp120; coat protein C;Species: human immunodeficiency virus type C;Date: 30-Sep-1988 #sequence_revision 30-Sep
                                                                                   RESULT
VCLJ3W
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                                                                env polyprotein
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A;Gene: env
C;Superfamily: type E
C;Keywords: AIDS; cap
F;1-30/Domain: signal
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A, Gene: env
C; Genetics:
A, Gene; env
C; Superfamily: type E retrovirus env polyprotein
C; Superfamily: type E retrovirus env polyprotein; glycoprotein; Keywords: AIDS; capsid protein; coat protein; protein; glycoprotein; F; 1-251/Product: coat protein gp120 (fragment) #status predic F; 252-443/Product: coat protein gp41 (fragment) #status predic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N;Contains: amino end of coat protein gp41; carboxyl end C;Species: human immunodeficiency virus type 1, HIV-1 A;Note: host Homo sapiens (man) C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_C;Accession: C41621
                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references:
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
C;Accession: A03974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F;1-251/Product: coat protein gp120 (fragment) #status predicted <GP1>F;252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>F;425-443/Product: coat protein gp41 (fragment) #status predicted <GP2>F;424-443/Product: transmembrane #status predicted <GMN>F;424-443/Pomain: transmembrane #status predicted <GMN>F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-856 < MUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Reference number: A; Accession: A03974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Title: Nucleic acid structure and expression of the A; Reference number: A93355; MUID:85111157; PMID:298210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-443 <BUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Reference number: A41621; MUID:92107924; PMID:1763038 A; Accession: C41621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Muesing, M.A.; Smith, D
Nature 313, 450-458, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VCLJVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N; Alternate names: coat polyprotein
                                                                                                                                                                                         31-511/Product: exterior membrane glycoprotein #status predicted <EXT>
512-856/Product: transmembrane glycoprotein #status predicted <TMM>
68,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,
611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Species: human immunodeficiency virus
                                                                                                Matches
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  638
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                                              1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNW
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YTSLIHSLIEESQNQQEKNEQELLELDKWANLWNW
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                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                            type E retrovirus env polyprotein
DS; capsid protein; coat protein; glycoprotein; immunodeficiency;
signal sequence #status predicted <SIO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    precursor - human
                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Smith,
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                                                                                                                                                                                                                                                                                                                                                                                                                           GB:K02083; NID:g555008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D.H.; Cabradilla,
                                                                                                                       94.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunodeficiency virus type
                                                                                                                                            Score 184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           coat protein; glycoprotein; immunodeficiency; polyp
20 (fragment) #status predicted <GPl>
                                                                                                                          Pred.
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                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PMID: 2982104
                                                                                                                       46-14;
                                                                                                                                                                                                                                                                                                                                                                                                                           PIDN: AAB59873.1;
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                                                                                                                                                 DB 1;
  672
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nguyen,
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                                                                                                                                               Length 856;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AIDS/lymphadenopathy
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                                                                                                                                                                                                                                                                                                                                                                                                                           PID: g328559
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precursor -

human immunodeficiency virus 120; coat protein gp41

type

type 1, HI 30-sep-1988

HIV-1

#text\_change

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C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change C;Accession: S21994; S70421 R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W. submitted to the EMBL Data Library, July 1991
A; Molecule type: 1
A: Residues: 1-357
                                       A; Reference number: A; Accession: S21994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F:1-29/Domain: signal sequence #status predicted <SIG>F;30-501/Product: coat protein gp120 #status predicted <GP1>F;30-847/Product: coat protein gp41 #status predicted <GP2>F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,354,
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A; Residues: 1-856 <STA>
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                                                                            A; Description: Distinct
                                                                                                                                                                               C; Species: human immuno
A; Variety: isolate 27B
                                                                                                                                                                                                     envelope protein gp120/gp41 - human immunodeficiency virus type C; Species: human immunodeficiency virus type 1, HIV-1
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A; Accession: B28922
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Virology 164, 531-536, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              env polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: A24774;
                                                                                                                                                                                                                                                                                                                                       Вb
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A; Residues: 1-861 <GUR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Superfamily: type E retrovirus env polyprotein; glycoprotein; polyprotein; transmembrane prote; Keywords: capsid protein; contain; glycoprotein; polyprotein; transmembrane prote; Ley/Domain: signal sequence #status predicted <SIG>
10-861/Product: env polyprotein #status predicted <EPP>
11-29,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,340,356,362,386,399
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                                                                                                                                                                                                                                                                                                                                       643
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33; Conserv
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                                                         ruct populations of S21990
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91.78;
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91.78;
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Pred. No. 4e-14;
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Pred. No. 4
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ches
                                                                               in blood and cerebrospinal
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A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-140'X',142-312,'X',314-357 <STE2>
A;Cross-references: EMBL:X61355; NID:g60179
C;Superfamily: type E retrovirus env polyprotein
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C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1005 #+cv+ change
                                                          A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-357 <ST2>
                                                                                                                                                                                                                         envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 27L)
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
C;Accession: S70422; S21996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency virus A;Reference number: $70417; MUID:92144209; PMID:1736940
A;Accession: $70425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              submitted to the EMBL Data Library, July 1991 A;Description: Distinct populations of HIV-1 in blood A;Reference number: S21990
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AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immu
A;Reference number: S70417; MUID:92144209;
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                                                                                                                                           R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency
A;Reference number: S70417; MUID:92144209; PMID:1736940
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                   A;Cross-references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1; A;Experimental source: patient 27L
                                                                                                                         A; Reference number: A; Accession: S70422
                                                                                                                                                                                                     R;Steuler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-222, 'X', 224-358
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A; Residues: 1-358 <STE1>
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YTTLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 174
                                                                                                                                                                                                                                                                                                                                                                                                YTSLIYTLIEQSQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . Similarity
32; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S21998; S70425
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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the EMBL |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92.8%;
88.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 181;
Pred. No.
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209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIDN:CAA43630.1; PID:g60183
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                                                                                                                                                                                                                                                                                                                                                                                                175
                                                                                                                                                                                                                                                                                                                                                                                                                                       36
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                                                                                                                                                                   virus
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                                                                                                                                                                   type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 type 1 in blood
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                                       PID:g1067129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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Data

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env polyprotein M - human immunodericiency virus cyro - . N;Alternate names: coat polyprotein N;Alternate names: coat polyprotein gp41; carboxyl end N;Contains: amino end of coat protein gp41; carboxyl end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C:Accession: T09448
R:Pang, S.: Vinters, H.V.:
submitted to the EMBL Data
A-Reference number: 216673
:cession: T09448
                                 A;Note: host Homo sapiens (man)
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change
                                                                                                                                                                                                                                               8
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C; Superfamily: type E retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         envelope glycoprotein - human immunodeficiency virus type 1 (strain JRFL) C:Species: human immunodeficiency virus type 1, HIV-1 C:Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-Nov-19
R; Burger,
                                                                                                                                           A41621
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             env protein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1; HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #t.
C;Accession: S13289
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-847 < PAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nature 348, 69-73, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, A.; Idler, K.;
                  Accession: A41621
                                                                                                                                                                                                                                                                                                                                                                      Molecule type: DNA
Residues: 1-847 <OBR>
                                                                                                                                                                                                                                                                                                                                                                                                                    Title: HIV-1 tropism for mononuclear phagocytes can be deference number: $13288; MUID:91043044; PMID:2172833 cession: $13289
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Best Local
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                                                                                                                                                                                                               YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                  Similarity
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Weiser,
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                                                                                                                       human immunodeficiency virus type 1 (fragment)
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B.; Flaherty,
                                                                                                                                                                                                                                                                                                                                                      retrovirus env polyprotein
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91.7%;
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91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Akashi, T.; O'Brien, W.A.; Chen,
Library, July 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               env polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 env polyprotein
                                                                                                                                                                                                                                                                                                  Score 179; DB 2; Pred. No. 1.6e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 179;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 180;
Pred. No. 4.
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K.; Gulla, J.;
                                                                                                                                                                                                                                                                                    Mismatches
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Nguyen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #text_change 31-Oct-1997
                                                                                                                                                                                                                                                                                                                   Length 847;
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                                                                                                                                                                                                                                                                                    Indels
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                                                                                    of coat protein
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P.N.; Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            I.S.; Koyanagi, Y.;
                                  26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24 - Nov - 1999
                                                                                                                                                                                                                                                                                    0,
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                                                                                    gp120
                                                                                                                                                                                                                                                                                    0;
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Search completed: May 16, Job time: 13.1446 secs

2003,

11:25:10

Job time :

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A;Gene; env
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; polyp
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp
E;1-30/Domain: signal sequence #status predicted <EXT>
F;31-509/Product: exterior membrane glycoprotein #status predicted <EXT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunode F;1-253/Product: coat protein gp120 (fragment) #status predicted <GP1>F;254-445/Product: coat protein gp120 (fragment) #status predicted <GP2:F;254-445/Product: coat protein gp41 (fragment) #status predicted <GP2:F;426-445/Domain: transmembrane #status predicted <TMN>F;9,23,42,48,78,85,101,107,131,137,143,147,152,155,190,205,353,358,367
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: GB:M77228; NID:g328627; PIDN:AAB03790.1; A;Note: this virus was isolated from the mother C;Genetics:
                                                 Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:K02007; NID:g328658; PIDN:AAB59882.1; PID:g328666 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Science 227, 484-492, 1985
A; Title: Nucleotide sequence and expression of an AIDS-associated A; Reference number: A04003; MUID:85090453; PMID:2578227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 env polyprotein precursor - human immunodeficiency vi. N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 1, HIV-1
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-855 <S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Note: host Homo sapiens (man) C; Date: 17-May-1985 #sequence_r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
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A; Residues: 1-445 <B
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A; Title: Evolution of human immunodeficiency virus type I nucleotide sequence diversi A; Reference number: A41621; MUID:92107924; PMID:1763038
A; Accession: A41621
                                                                                                                                                                                                         F;610,624,636,815/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: A03976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Sanchez-Pescador, R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Accession: A03976
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                                                                                                                                                                                                                                     510-855/Product: transmembrane glycoprotein #status predicted <TMM> 87,129,140,158,184,190,200,244,265,292,298,304,334,341,358,364,388,394,400,408,445
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Best Local :
                                                                                                         Matches
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637
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YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                         31.
                                                                                                                                  Similarity
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                                                                                                         Conservative
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J. Biol. Chem. 265:10373-10382(1990).
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l F.;
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01-FEB-1996 (Rel. 33, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: glycoprotein (GP120); Transmembrane allocations:
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P04624;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shaw G.M., Wong-Staal F., Reddy E.P.;
"HTLY-III env gene products synthesized in antibodies present in the sera of AIDS paticular and the sera of AIDS pati
                                                                                                                                                                                                                                                                                                                                                              HIV; M14100; ENV$HXB3.
InterPro; IPRO00328; Env_GP41.
InterPro; IPRO00777; GP120.
Pfam; PP00516; GP120; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entrepean Bioinformatics Institute. There are no restruce by non-profit institutions as long as its content
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Shaw G.M., Wong-Staal F., Reddy E.P.
                                                                                                                                                                                                                                                                                                                                             Pfam; PF00517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
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Viruses; Retroid viruses; Retrovirio
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Q70626;
             GlycoSuiteDB;
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MEDIINE-95127297; PubMed-7826699;

Reitz M.S. Jr., Hall L., Robert-Guroff M., Laute Shaw G.M., Kong L.I., Weiss S.H., Waters D., Gal "Viral variability and serum antibody response infected with HIV type I (HTLV type IIIB).";

AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type 1 (LW12.3 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID-82834;
                                                                                                                                                                                                                                                                                                                                                                                  glycoprotein
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999 (Rel. 38, Last annotation (Contains:
polyprotein GP160 precursor (Contains:
tein (GP120); Transmembrane glycoproteir
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                                                                   ENV_HV1BR STANDARD; PRT; 861 AA.
P03377:
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein (GP120); Transmembrane glycoprotein
glycoprotein (GP120); Transmembrane glycoprotein
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Envelope polyprotein GP160 precursor [Contains: E
glycoprotein (GP120); Transmembrane glycoprotein
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EMBL; X01762; CAA25903.1; ALT_SEQ.
PIR; A03974; VCLYVL.
HIV; K02083; ENV$PV22.
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NCBI_TaxID=11700;
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MEDLINE-88219542; PubMed-3369091;

MEDLINE-88219542; PubMed-3369091;

Gurgo C., Guo H.-G., Franchini G., Aldovini A., Collalti E.,

Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. Jr.;

"Envelope sequences of two new United States HIV-1 isolates.";

Virology 164:531-536(1988).

-i- MISCELLANEOUS: THE SC ISOLATE WAS TAKEN FROM AN ARC PATIEN'
     This SWISS-PROT entry is copyright. It is produce between the Swiss Institute of Bioinformatics Institute. There a use by non-profit institutions as long as i modified and this statement is not removed. Us
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Score 184; DB 1; Pred. No. 6.3e-15; 3; Mismatches 0

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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: E
glycoprotein (GP120); Transmembrane glycoprotein
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PIR; A24774; VCLJ3W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=86218077; PubMed=2423250;
Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,
Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., Parks W.P., Josephs S.F., Gallo R.C., Parks E.S., Parks W.P., Josephs G.F., Gallo R.C., Parks E.S., Parks W.P., Josephs G.F., Gallo R.C., Parks E.S., Parks W.P., Josephs G.F., McConstruction of conserved a regions in the envelope gene of HTLV-III/LAV, the 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus type 1 (WMJ1 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID=31678;
                                                                                                                                                                                                                                                                                                                                                                                                            AIDS;
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InterPro; IPR000777;
Pfam; PF00516; GP120;
Pfam; PF00517; GP41;
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Cell 45:637-648(1986).
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1- MISCELLANEOUS: ISOLATES WMJ1, WMJ2, AND WMJ3 WERE OBTA BLOOD SAWPLES SEQUENTIALLY TAKEN FROM A TWO-YEAR. OLD H WAS PERINATALLY INFECTED BY HER MOTHER.
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Envelope polyprotein GP160 precursor [Contains: I
glycoprotein (GP120); Transmembrane glycoprotein
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15-JUL-1999
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InterPro; IPR000777; GP120.
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es; Retroviridae; Lentivirus.
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                                                                                                                                                                                                                                      InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                               the viral genome.";
J. Virol. 64:4016-4020(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1 (SF33 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID=11690;
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16-OCT-2001 (Rel.
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991 (Rel. 17, Last sequence update)
901 (Rel. 40, Last annotation update)
polyprotein GP160 precursor (Contains:
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
glycoprotein (GP120); Transmembrane glycoprotein
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HIV; N
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                                                                                                                                    Cheng-Mayer C., Quiroga M., Tung J.W., Dina D., Levy J.; "Viral determinants of human immunodeficiency virus type 1 T-cell macrophage tropism, cytopathogenicity, and CD4 antigen modulation. J. Virol. 64:4390-4398(1990).
                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                        Human immunodeficiency virus type 1 Viruses; Retroid viruses; Retrovirion (CBI_TaxID=11691;
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InterPro; IPR000777; GP120.
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M38428; E
                                                                                                       SWISS-PROT entry is copyright. It is produced through sen the Swiss Institute of Bioinformatics and the EM
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                  SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-86218077; PubMed=2423250;
MEDLINE-86218077; PubMed=2423250;
Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D., Modrow S., Starcich B.R., Hahn B.H., Josephs S.F., Gallo R.C., Wong-Staal Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., Wong-Staal "Identification and characterization of conserved and variable "Identification and characterization of conserved and variable "Andentification" and characterization of conserved and variable "Identification" and variable "Identification" and "Iden
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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InterPro: IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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P12489;

01-OCT-1989 (Rel. 12, Created)

01-OCT-1989 (Rel. 12, Last sequence update)

15-UUL-1999 (Rel. 38, Last annotation update)

Envelope polyprotein GP160 precursor [Contains: Exterior membrane Envelope (GP120); Transmembrane glycoprotein (GP41)].
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MEDLINE-89352108; PubMed-2669897;
KOMİYama N., Hattori N., Inoue J., Sakuma
"Nucleotide sequences of gag and env genes
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Res. Hum. Retroviruses 5:411-419(1989).
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Search completed: May 16, 2003, 11:13:36
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

16	15	14	13	12	11	10	9	80	7	6	ъ	4	ω	2	_	Result No.
189	189	189	193	193	193	193	193	193	193	193	193	193	193	193	193	Score
96.9	96.9	96.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	Query Match
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15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	)B
Q78705	090178	Q03806	Q74090	Q74599	092877	Q72502	Q85582	Q89797	Q78243	Q70608	070605	Q70604	Q70606	Q70607	Q993A6	ID
Q78705 human immun	O90178 human immun	Q03806 human immun	Q74090 human immun	Q74599 human immun	simian	human	Q85582 human immun	Q89797 human immun	Q78243 human immun	Q70608 human immun	Q70605 human immun	_	Q70606 human immun	Q70607 human immun	Q993a6 human immun	Description

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
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## ALIGNMENTS

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YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36    :	Query Match 99.0%; Score 193; DB 15; Length 645; Best Local Similarity 97.2%; Pred. No. 4e-15; Matches 35; Conservative 1; Mismatches 0; Indels 0; Gaps 0	SEQUENCE 645 AA; 72485 MW; B076514BE93362EC CRC64;	Transmembrane.	AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;	Pfam; PF00517; GP41; 1.	Interpro; IPRO00777; GP120.	InterPro; IPR000328; Env_GP41.	AF321563; AAK18810.1;	Proc. Nati. Acad. Sci. U.S.A. 98:4587-4592(2001).		influences on anti-	"Localization of CD4+ T cell epitope hotspots to exposed strands of		Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M.,	MEDLINE=21192672; PubMed=11287644;	STRAIN=1007;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=11676;		Human immunodeficiency virus type 1	ENV.	nvelope glycopro	(TrEMBLrel. 19,	(TrEMBLrel. 17,	01-JUN-2001 (TrEMBLrel. 17, Created)		Q993A6 PRELIMINARY; PRT; 645 AA.	LT 1

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Reitz M., Hall L., Robert-Guroff M., Lautenberger
Shaw G., Kong L., Weiss S., Waters D., Gallo R., E
"Viral variability and serum antibody response in
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane. NON_TER 747 747
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SEQUENCE 747 AA; 84250 MW; 732E836A52245F14 CRC64;
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Reitz M., Hall L., Robert-Guroff M., Lautenberger
Rheitz M., Kong L., Weiss S., Waters D., Gallo R., B
"Viral variability and serum antibody response in
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Pred. No. 4.7e-15;
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InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ENV.
Viruses; Retroid viruses;
NCBI_TaxID=11676;
                                    ENV
                                                                                                                                                                                                                                                                           InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
pfam; pF00516; GP120; 1.
pfam; pF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein;
NON_TER 752
                                                                                                                                                                                                                                                                                                                                                                        Mulder K.E.;
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NCBI_TaxID=11676;
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                      Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                             Submitted (JUL-1994) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=LW851;
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                                                                                                                                                                                                                                                                  752 AA;
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97.2%;
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                                               (Fragment).
            Retroviridae; Lentivirus
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Q70608;
01-NOV-1996
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blatt
"Viral variability and serum antibody response in a la
infected with HIV type 1 (HTLV type IIIB).;
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Pfam; PF00517; GP41; 1.
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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SEQUENCE
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                                                                                                               AIDS;
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InterPro; IPR000777; GP120.
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                                                                                                                                                                                                Mulder K.E.;
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ER 752 7
                                                                                                             Coat protein;
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PF00517; GP41; 1.
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752 AA;
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(TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
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97.2%;
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97.2%;
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Pred. No. 4.7e-15;
1; Mismatches 0
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01-NOV-1996 (TrEMBLrel. 0
01-OCT-2001 (TrEMBLrel. 1
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Q78243;
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Q1-NOV-1996
Q1-DEC-2001
SEQUENCE FROM N.A.
STRAIN-LW90-2;
MEDLINE-95127297: PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M.,
Shaw G., Kong L., Weiss S., Waters D.
"Viral variability and serum antibody
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Pfam; PF00517; GP41; 1.

Pfam; PF00517; GP41; 1.

AIDS; Coat protein; Glycoprotein; Polyprotein; TAIDS; Coat protein; 96630 MW; 1A3767B9B7E98027
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Verani P., Rossi G.B.;
"Sequence analysis of HIV-1 proviral
"Sequence in Facted HUT-78 cellular
                                                                                                                         ENV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Titti F., Federico M., Butto S., Orecchia A., Borsetti A., Saggio I., Verani P., Rossi G.; "Variability of HIV-l virus: characteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=89352106; PubMed=2765297;
Federico M., Titti F., Butto S., Orecchia
Macchi B., Mangiano N., Verani P., Rossi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chronically infected HUT-78 cell
J. Viral Diseases 1:40-55(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae;
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EMBL; Z11530; CAA77628.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      productive clone."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Biological and molecular characterization of producer and producer clones from HUT-78 infected with a patient HIV iscalls Res. Hum. Retroviruses 5:385-396(1989).
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 Lautenberger J., Hahn
., Gallo R., Blattner V
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Length 851; Indels

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Gaps

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laboratory

worker

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infected but not

isolate.";

Taddeo non

в.,

producer

Zibai Q.,

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PRESULT SHEET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Б
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InterPro; IPRO0077; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoproteir
SEQUENCE 854 AA; 97124 MW; /
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01-NOV-1996
01-NOV-1996
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AIDS Res.
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Submitted
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;
                                                                                                                                                                                        J. Virol. 66:3151-3154(1992).
EMBL; M19921; AAA44992.1; -.
                                                                                                                                                                                                                                  gp41 resultis in loss of killing
lymphocytes.";
                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM
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Submitted (JUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae;
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InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (JUL-1994) to the EMBL; U12053; AAA76685.1; EMBL; U12036; AAA76671.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM |
STRAIN=LW90-2;
                                                                                                                                                                                                                                                  AEDLINE-92219408; runnou Dai L.C., Littaua R., Takahashi K., Dai L.C., Cittaua R., Takahashi K., Matation of human immunodeficiency Mutation of human immunodeficiency in loss of killing by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 retrovirus in human and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Adachi A., Gendelman H.E.,
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35; Conserv
Similarity
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L-1989) to the
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                                                              Glycoprotein; Polyprotein; Transmembrane 97124 MW; ABA0A1BF36D5595A CRC64;
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EMBL/GenBank/DDBJ databases.
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Score
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  193;
No.
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5.3e-15;
hes 0;
DB 15;
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Best Local 9
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CONFLICT
CONFLICT
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q72502;
01-NOV-1996 (TrEMBLrel. 01,
01-NOV-1996 (TrEMBLrel. 01,
01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                  092877
                             Simian-Human immunodeficiency Viruses; Retroid viruses; Retroid viruses; Ret. NCBI_TaxID=57667;
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                                                                                                                                                                                                                                                                                                             Pfam; PF00516; GP120;
Pfam; PF00517; GP41;
AIDS; Coat protein; G
SEQUENCE FROM N.A. MEDLINE=99098984;
                                                               ENV.
                                                                                                         01-NOV-1998
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EMBL; U26942; AAB60578.1; -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
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IPR000777; GP120.
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214 H ->
530 530 A ->
739 739 G ->
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 PubMed=9882298;
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                                        Retroviridae;
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1; Mismatches
                                                                                                                                                                                                                                      Score 193;
Pred. No. 5.
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H -> L (IN REF. 2).
A -> S (IN REF. 2).
G -> D (IN REF. 2).
FF2264B3841D1220 CRC64;
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                                          Lentivirus
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.3e-15;
les 0;
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Best Local S
Matches 35
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Q74599;
01-NOV-1996
01-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Changes in human immunodeficiency virus type 1 envelope responsible for the pathogenicity of a multiply passaged immunodeficiency virus (SHIV-HXBC2).";
J. Virol. 73:976-984(1999).
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Sodroski J.
                                                                                                    pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glyco
                                                                                                                                   Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases. EMBL; D86068; BAA12995.1; InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                            Env.
                                                                                           SEQUENCE
                                                                                                                                                                                                 STRAIN-MCK1;
                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                 Virology 174:103-116(1990).
                                                                                                                                                                                                                                         "Spectrum of Biological Properties
"Spectrum of Biological Properties
                                                                                                                                                                                                                                                                              MEDLINE=90101366;
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            YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Coat protein; Glycoprotein; Polyprotein; Transme NCE 856 AA; 97151 MW; C50BE0388FB73659 CRC64;
                                           Similarity 97.:
35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 97.35; Conservative
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e T., Halloran M., Fanton J.W., Axthelm M.K., Letvin N.L.,
J.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FROM
                                                                                         protein;
856 AA;
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                                                                                                                                                                                                                                                                                PubMed=1688473;
                                                                                         Glycoprotein; Polyprotein; 197287 MW; 238042A234C56685
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97.2%;
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                                           Score 193; DE Pred. No. 5.3e 1; Mismatches
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Pred. No. 5.3e-15;
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01-JUN-2002 (TrEMBLrel.
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InterPro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
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Pfam; PF00517; GP41; 1.

AIDS; Coat protein; Glycoprotein; Polyprotein; Transmer SEQUENCE 856 AA; 97396 MW; FE3E784C423C108C CRC64;
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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"Spectrum of Biological Properties
(HIV-1) Isolates.";
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Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
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EXTERIOR MEMBRANE GLYCOPROTE
(BY SIMILARITY).
TRANSMEMBRANE GLYCOPROTEIN (
(BY SIMILARITY).
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BY SIMILARITY.
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Last annotation update
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Pred. No. 5.3e-15;
1; Mismatches 0;
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Matches 35
                                                                                         Fang H., Pincus S.H.;
Fang H., Pincus S.H.;
"Unique insertion sequence and particle with immunotoxins from infected T cells.";
J. Virol. 69:75-81(1995).
immunotoxin-resistant variant T
Submitted (JUN-1998) to the EMBI
EMBL; AF070521; AAC28452.1; -.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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                                               Fang H., Pincus S.H.;
"Spontaneous activation of human immunodeficiency virus
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Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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Fang H., Pincus S.H.;
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97.2%;
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                                                                                                                    and pattern of CD4 expression in variants from human immunodeficiency virus type 1-
                                             EMBL/GenBank/DDBJ databases
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Last sequence update)
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SEQUENCE
                              protein; Glycoprotein; Polyprotein; Transmembrane.
854 AA; 96885 MW; 0808F3AED27C693B CRC64;
Length
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Ω Query Match
Best Local Similarity
Matches 34; Conserv 1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF YTSLIHSLIEESQNQQEENEQELLELDKWASLWNWF Conservative 96.98; ; Score 189; DB; Pred. No. 1.6e
2; Mismatches DB 15; ..6e-14; les 0; 36 Indels 0, Gaps

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Search completed: May 16, Job time: 27.3124 secs 2003, 11:19:48

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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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1: /cgn2_6/ptodata/1

2: /cgn2_6/ptodata/1

3: /cgn2_6/ptodata/1

4: /cgn2_6/ptodata/1

5: /cgn2_6/ptodata/1

6: /cgn2_6/ptodata/1
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/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
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US-09-082-279B-630
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	US-09-082-279B-775	US-09-082-279B-771	US-08-255-208A-1	US-09-315-304B-1486	US-09-315-304B-1470	US-09-315-304B-1469	US-09-315-304B-1161	US-09-315-304B-1121	US-09-315-304B-1076	US-09-315-304B-834	US-09-315-304B-705	US-09-315-304B-631	US-09-315-304B-630	US-09-315-304B-603	US-09-315-304B-498	US-09-315-304B-497	US-09-315-304B-15	US-08-474-349A-413
	Sequence 775, App	Sequence 771, App	Sequence 1, Appli	Sequence 1486, Ap	Sequence 1470, Ap		Sequence 1161, Ap		Sequence 1076, Ap		-	•	Sequence 630, App	•	•	• -	Sequence 15, Appl	Sequence 413, App

ALIGNMENTS

### ; STRANDEDNESS: single ; TOPOLOGY: unknown ; MOLECULE TYPE: peptide US-08-073-028-1 RESULT 1 US-08-073-028-1 Sequence 1, Application Patent No. 5464933 GENERAL INFORMATION: TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 36 amino acids APPLICANT: APPLICANT: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA: TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090 ATTORNEY/AGENT INFORMATION: NUMBER OF SEQUENCES: 7 CORRESPONDENCE ADDRESS: TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF TITLE OF INVENTION: TRANSMISSION APPLICATION NUMBER: FILING DATE: 07-JUN CLASSIFICATION: 514 NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 COUNTRY: US CITY: New York STATE: New York TYPE: amino acid TELEFAX: REFERENCE/DOCKET NUMBER: STREET: ADDRESSEE: , Application US/08073028 5464933 1155 Avenue of the Americas Matthews, Thomas Wild, Carl T. USA (212) 869-8864/9741 Bolognesi, Pennie & Edmonds 07-JUN-1993 N: 514 US/08/073,028 Dani P. Score 193; DB 1; Le Pred. No. 7.1e-18; Pred. ----hes 0; 7872-004-999 Ċ #1.25

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1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36 

Query Match Best Local S Matches

ch 99.0%; l Similarity 97.2%; 35; Conservative

Pred. No. 7.16 1; Mismatches

Length 36 Indels

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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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                                                                                                                              Sequence 1, Application US/09071877 Patent No. 6015881
                                                                                                              GENERAL INFORMATION:
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Best Local Similarity
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                                                                               APPLICANT: Kang, Myung-Chol APPLICANT: Bray, Brian
               APPLICANT: METUTAN, Gene
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS
                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: ur
MOLECULE TYPE:
08-486-099-1
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
FILE REFERENCE:
                                                              APPLICANT:
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STREET: New York
CITY: New York
TRA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 787:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/01 FILING DATE: 07-JUN-1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                 1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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10036-2711
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                                             Lichty, Maynard
Mader, Catherine
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Langlois, Alphonse J
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Lambert, Dennis M.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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97.2%;
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Pred. No. 7.1e-18;
Prematches 0;
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Query Match
Best Local Similarity
Watches 35; Conserva
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                                                               ; TOPOLOGY: ur; MOLECULE TYPE: US-08-360-107A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-360-107A-
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Query Match
Best Local Similarity 97.3
Matches 35; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver. 2.0
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                                                                                                                                                                               INFORMATION FOR SEQ ID NO:
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TYPE: PRT
                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/360,107A FILING DATE: 20-DEC-1994 CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION: NAME: Coruzzi, Laura A.
                                                                                                                                                                                                                                           REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Petteway, Stephen R.
APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR INHIBITION
TITLE OF INVENTION: OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
                                                                                                                                                            SEQUENCE CHARACTERISTICS
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                                                                                                                             amino acid
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66141 PENNIE
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Lambert, Dennis M.
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of the Americas
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                  Score 193; DB 3; Pred. No. 7.1e-18;
     Mismatches
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US-08-484-223B-1
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                                                                                                                   Sequence 1, Application Patent No. 6054265
                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 97.2
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                                                                                                      GENERAL
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                                 APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
REGISTRATION UMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872-029
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: unknown
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,223B
FILING DATE: U7-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Petteway, Stephen R.
APPLICANT: Langlois, Alphones B.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF
TITLE OF INVENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
   APPLICANT:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: New York
STATE: New Yor
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                                                                                                                                                                                                                          1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                           1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                      INFORMATION:
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                                                                                                                                      Application US/08919597
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Barney, Shawn O.
Lambert, Dennis M.
Petteway, Stephen R.
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                                                     Wild, Carl T.
                                                                   Matthews, Thomas J.
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97.2%;
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                                                                                   Dani P.
                                                                                                                                                                                                                                                                                                           Score 193;
Pred. No. 7.
                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Barney, S
APPLICANT: Lambert,
APPLICANT: Petteway,
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 97.2
Matches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/08475668A Patent No. 6060065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REPERENCE/DOCKET NUMBER: 787
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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LENGTH: 36 amino acids
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ATTORNEY/AGENT INFORMATION:
NAME: Coruzzi, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/919,597
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MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR INHIBITION
TITLE OF INVENTION: OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                      NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER:
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                                                                          COUNTRY: USA
ZIP: 10036-2711
                                                                                                               CITY: New York STATE: New Yor
                                                                                                                             ADDRESSEE: Pennle & Dumburg
ADDRESSEET: 1155 Avenue of the Americas
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                                                                                                             New York
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97.2%;
                                                                                                                                                                                                                                         , Stephen R.
COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING INF
                                                                                                                                                                                                         TRANSMISSION 211
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US-08-485-551A-1
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
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COMPUTER READABLE FORM:
GENTIIM TYPE: Floppy disk
                                            NAME: COPUZZI, LAURA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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TOPOLOGY: unknown
MOLECULE TYPE: peptide
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REFERENCE/DOCKET NUMBER: 787
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                              CURRENT APPLICATION DATA:
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                                TELEFAX:
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STATE: New York
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                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                               SOFTWARE:
                                                                                                                                                                                                                               OPERATING SYSTEM:
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10036-2711
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Coruzzi, Laura A.
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(212) 869-9741/8864
                                  (212) 869-9741/8864
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                                                                                                                                                                                                              PatentIn Release #1.0, Version #1.30
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                07-JUN-1995
N: 435
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMISSION
211
                                                                                                                                                                                                                                                                                                                                                                                Edmonds LLP
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                                                                                                                                                                               US/08/485,551A
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                                                                                 7872-023

    Mismatches

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US-08-471-913A-3
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                                                                                                                                                                                   TELERA: (212)
TELERA: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
"FNGTH: 36 amino acids
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Matches
                                                                                        Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide
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les 35; Conserv
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                                                              Local Similarity es 35; Conserv
                                                                                                                                                         TOPOLOGY: unknown
                                                                                                                                                                      STRANDEDNESS
                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: New York
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                                                                                                                                                                                                                                                                                                                                              NAME:
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                              1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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amino acid
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                                                                                                                                                                                                                                                                  (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Petteway, Stephen R.
Langlois, Alphonse J.
EMTION: FOR INHIBITION OF MEMBRANE
VENTION: FUSION-ASSOCIATED EVENTS, INCLUDING EPS:
                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Barney, Shawn O.
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SYSTEM: PC-DOS/MS-DOS
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                                                                           99.0%;
97.2%;
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                                                           Score 193; DB 3; Pred. No. 7.1e-18; 1; Mismatches 0
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                                                                                          Length 36;
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US-08-485-264A-1
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                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                               Patent No.
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                              ery Match
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/073,028
FILING DATE: 07-JUN-1993
ATTORNEY/AGENT INFORMATION:
                TITLE OF INVENTION:
                                                 TITLE OF
                                                                  APPLICANT:
                                                                                 APPLICANT:
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ADDRESSEE: Pennie & Edmonds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872-004-999
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STATE: New York
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/554,616
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10. 6228983
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                                               INVENTION:
                                                                                                                                                                                                             Application US/08485264A
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                                                              Barney, Shawn O.
Lambert, Dennis M.
Petteway, Stephen R.
Langlois, Alphonse J.
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                                                                                                                               Wild, Carl T.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                Matthews, Thomas J.
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, Alphonse J.
COMPOSITIONS FOR INHIBITION OF
MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING
RESPIRATORY SYNCYTIAL VIRUS TRANSMISSION
232
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                               1; Mismatches
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Pred. No. 7.1e-18
                                                                                                                                                                                                                                                                                                                                                                                              DB 4;
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Query Match
Best Local Similarity
Whiches 35; Conserve
                                                                 ; OTHER INFORMATION: Core polypeptide US-09-082-279B-15
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                                                                                                                                  SOFTWARE: F
SEQ ID NO 15
LENGTH: 36
TYPE: PRT
                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 15, Application US/09082279B Patent No. 6258782
   Best Local Similarity Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                        FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
                                                                                                                                                                                                                                                             APPLICANT: Anwer, Mohmed
APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (212) 869-974
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                 NUMBER OF SEQ ID NOS:
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                                                                                                                ORGANISM: Artificial Sequence
                                                                                                    FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090 TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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CITY: New York
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OPERATING SYSTEM:
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FILING DATE: 07-JUN-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742
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Merutka, Gene
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   Conservative
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Floppy disk
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                  99.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.0%;
97.2%;
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          Score 193; DB 4,
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Pred. No. 7.1e-18;
1; Mismatches 0
Mismatches
                                Length 36;
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RESULT 15
US-09-082-279B-603
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                                                                                                                                                                                                                         OTHER INFORMATION: Core polypeptide US-09-082-279B-498
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NUMBER OF SEQ ID NOS: 1515

SOFTWARE: FASTSEQ for Windows Version 3.0

SEQ ID NO 498

LENGTH: 36

TYPE: PRT

ORGANISM: Artificial Sequence
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CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEO ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
TO ID NO 497
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                               Query Match 99.0
Best Local Similarity 97.3
Matches 35; Conservative
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Best Local Similarity 97.2%;
Matches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEDTIDES WITH ENHANCED
NITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                         1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                             YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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Guthrie, Kelly
Merutka, Gene
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Merutka, Gene
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                                                                                                                                                                   99.0%;
                                                                                                                                               Score 193; DB 4;
Pred. No. 7.1e-18;
1; Mismatches 0
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Pred. No. 7.1e-18;
1; Mismatches (
                                                                                                                                                   0;
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B.
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Search completed: May 16, Job time: 11.1928 secs
                                                                                                                                                                                                          ; OTHER INFORMATION: Core polypeptide US-09-082-279B-603
                                                                                                                                     Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 603
LENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 603, Application US/09082279B Patent No. 6258782
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/082,279B CURRENT FILING DATE: 1998-05-20
                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                              TYPE: PRT
                                                           1 YTSLIHSLIEESONOQEKNEQELLELDKWASLWNWF 36
                                                                                   1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION:
                                                                                                                                                                                                                                                                                                                             FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Guthrie, Kelly
Merutka, Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anwer, Mohmed
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                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   7872-043
                                                                                                                                                       99.0%;
97.2%;
                2003, 11:22:13
                                                                                                                                                       Score 193; DB 4;
Pred. No. 7.1e-18;
                                                                                                                                         Mismatches
                                                                                                                                                                       Length 36;
                                                                                                                                       Indels
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Scoring table:
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                 DB seq
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 length: 0
length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             362588 seqs, 96450795 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
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195
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Maximum Match 100%.
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                        /cgn2_6/ptcdata/1/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptcdata/1/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptcdata/1/pubpaa/US06_PUBCOMB.pep:*
/cgn2_6/ptcdata/1/pubpaa/US07_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/ECTUS_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
                                                                                                                                                                                                                  /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
                                                                                                                                                   6/ptodata/1/pubpaa/US07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version 5.1.4_p5_4578 (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                 _PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match Length	ength	DB	ID	Description
1	193	99.0	36	9	US-09-874-475-16	Sequence 16, Appl
2	193	99.0	36	9	US-10-116-797-1	1,
ω	193	99.0	36	9	US-09-493-346-1	1,
4	193	99.0	36	10	US-09-796-202-10	e 10
<sub>5</sub>	193	99.0	36	10	US-09-779-451-5	
6	193	99.0	36	10	US-09-834-628-1	1,
7	193	99.0	36	10	US-09-854-816-1	<u>'</u>
8	193	99.0	36	10	US-09-854-816-108	108
9	193	99.0	37	9	US-09-848-616-176	_
10	193	99.0	46	10	US-09-779-451-41	41,
11	193	99.0	56	10	US-09-779-451-4	Þ
12	193	99.0	177	9	US-10-040-349B-2	Sequence 2, Appli
13	193	99.0	221	9	US-10-059-271-84	•
14	193		232	9	US-10-059-271-81	81,
15	. 193	99.0	254	9	US-10-059-271-82	Sequence 82, Appl
16	193		256	9	US-10-059-271-97	Sequence 97, Appl
17	193		268	10	US-09-854-816-16	Sequence 16, Appl
18	193		268	10	US-09-854-816-17	Sequence 17, Appl
19	193	99.0	268	10	US-09-854-816-18	Sequence 18, Appl

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	. 21	0.2
180	180	181	181	181	181	182	182	183	184	184	184	187	189	190	190	193	193	193	193	193	193	193	193	193	TAR
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267	46	847	646	619	268	269	269	269	269	268	233	1231	268	. 268	36	1186	1101	861	856	853	519	391	345	345	344
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US-09-854-816-38	US-09-854-816-109	US-09-476-242-2	US-09-891-609-2	US-09-891-609-4	US-09-854-816-26	US-09-854-816-34	US-09-854-816-28	US-09-854-816-46	US-09-854-816-12	US-09-854-816-9	US-09-854-816-50	US-10-059-271-94	US-09-854-816-13	US-09-854-816-19	US-09-912-824-1	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1
Sequence 38, Appl	Sequence 109, App	2	Sequence 2, Appli	4, A	•	Sequence 34, Appl	Sequence 28, Appl		Sequence 12, Appl	Sequence 9, Appli	Sequence 50, Appl	Sequence 94, Appl	Sequence 13, Appl	Sequence 19, Appl	Sequence 1, Appli	Sequence 55, Appl	Sequence 53, Appl	ū	9 1,		`		Sequence 8, Appli	Sequence 49, Appl	Sequence 1, Appli

### ALIGNMENTS

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RESULT 1
US-09-874-475-16
US-09-874-475-16
; Sequence 16, Application US/09874475
; Publication No. US20020182592A1
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; TYPE: PRT
; ORGANISM: Fusion Inhibitor Peptide
US-09-874-475-16
                                                                                                                                                                                              RESULT 2
US-10-116-797-1
                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.1 SEQ ID NO 16 LENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 97.2
Matches 35; Conservative
                                                                                                                                                    Sequence 1, Application US/10116797 Publication No. US20030044411A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Petropoulos, Christos J.
APPLICANT: Parkin, Neil T.
APPLICANT: Whitcomb, Jeanette
APPLICANT: Whitcomb, Jeanette
APPLICANT: Huang, Wei
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE
TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS
FILE REFERENCE: 2793/65166
CURRENT APPLICATION NUMBER: US/09/874,475
CURRENT FILING DATE: 2001-06-04
NUMBER OF SEQ ID NOS: 16
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING HIV-1 INFECTION
FILE REFERENCE: 64672-A
CURRENT APPLICATION NUMBER: US/10/116,797
CURRENT FILING DATE: 2002-10-15
                                                                                                                                                                                                                                                                                    1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                  99.0%;
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Pred. No. 1e-16;
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; FEATURE:
; ANAME/KEY: PEPTIDE;
; LOCATION: (1)..(36);
; OTHER INFORMATION: T-20
US-09-796-202-10
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Best Local Similarity
Watches 35; Conserv?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 36
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-116-797-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: T20 peptide US-09-493-346-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-493-346-1
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Best Local Similarity 97.2
                                                                                                                                                   NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin version 3.0
SEQ ID NO 10
LENGTH: 36
TYPE: PRT
Query Match
Best Local Similarity
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SOFTWARE: PatentIn version
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 1
                                                                                                                                                                                                                                 APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
FILE REFERENCE: 2048/61010/JFW/SHS
CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                                                                                                                                                            Sequence 10, Application US/09796202
Patent No. US20020068813A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/493,346
CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: PatentIn Ver: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1 TITLE OF INVENTION: Infection FILE REFERENCE: 61009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   equence 1, Application US/09493346 blication No. US20030082185A1 NERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                     ORGANISM: unknown
                                                                                                                                                                                                                                                                                                                                                                                           9-796-202-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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97.2%;
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Pred. No. 1e-16;
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Pred. No. 1e-16;
   Score 193;
Pred. No.
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1e-16;
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US-09-834-628-1
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US-09-779-451-5
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LENGTH: 36
                                                                     Matches
                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/09834628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PEPTIDES FOR INHIBITION
FILE REFERENCE: 05823.0198-00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/181,543 PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 60/235,901 PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: YU,
                                                                                                                                                        FEATURE: OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                      LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
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nes 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                   Similarity
35; Conser
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97.2%;
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                                                                                  Score 193; DB 1
Pred. No. 1e-16;
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Pred. No. 1e-16;
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                                                                                                      DB 10;
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36
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US-09-854-816-1

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US-09-854-816-108
US-09-854-816-108
Sequence 108, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE DESCRIPTION: SEQ ID NO: 1: 9-854-816-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                       1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                           1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
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CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Making Same NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
NUMBER OF SEQUENCES:
                                                                                                                                                           APPLICANT: Andrew C.
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                                                                                                                                                                                                                                                                                                                                                                                                   35;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94080
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                                         INVENTION:
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                                                                          J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Robert S. McDowell
J. Christopher Phelan
                                                                                                                  J. Kevin Judice
Robert S. McDowell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J. Kevin Judice
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97.2%;
                                     Constrained Helical Peptides and Methods of
  Making Same
113
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Pred. No: 1e-16;
1; Mismatches
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                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 176
LENGTH: 37
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Best Local Similarity
Matches 35; Conserv
                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                   APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Sebbel, Peter APPLICANT: Dunant, Nico
                                                                                           OTHER INFORMATION: DP178c peptide
                                                                                                                FEATURE:
                                                                                                                                ORGANISM: Artificial Sequence
                                                                                                                                                      TYPE: PRT
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 Local Similarity
les 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: Linear SEQUENCE DESCRIPTION: SEQ ID NO: 108:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
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STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: Amino Acid
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                                                                                                                                                                                                                                                                                                                                           Bachmann, Martin
Tissot, Alain
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 Conservative
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                   99.0%;
97.2%;
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97.2%;
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                 Score 193; DB 9;
Pred. No. 1.1e-16;
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Pred. No. le-16;
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Mismatches
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                                     Length 37;
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1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

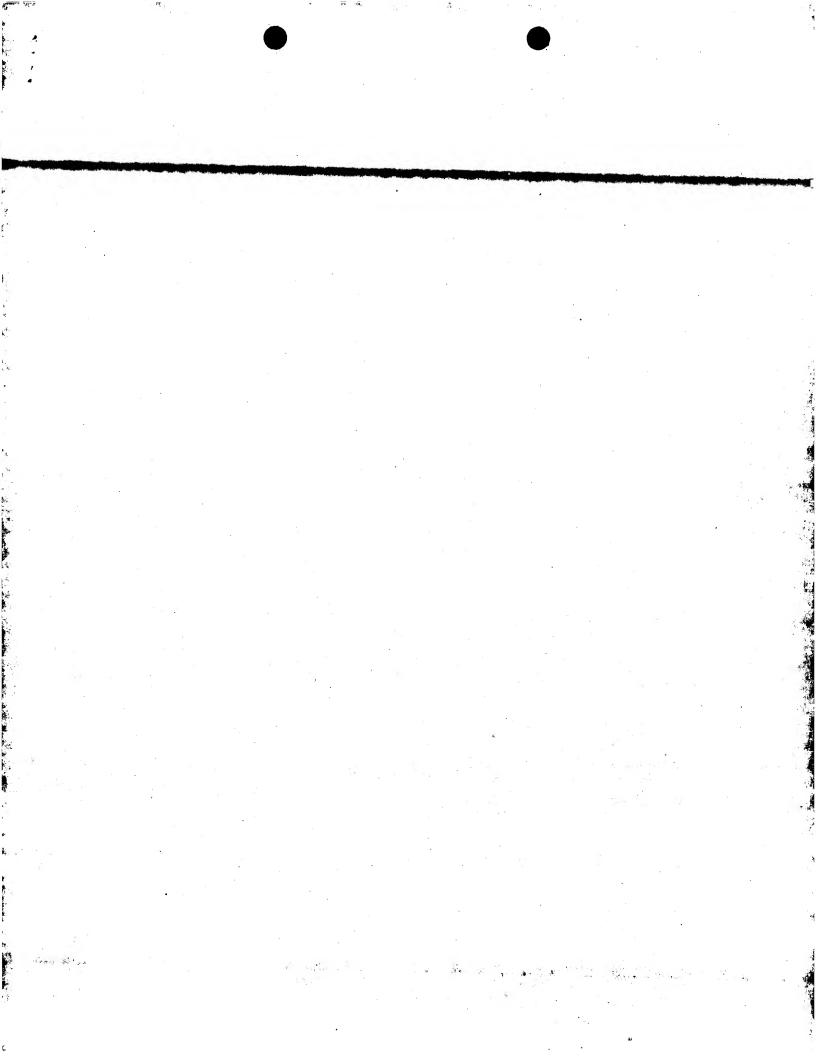
В

YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37

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US-10-040-349B-2
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                                                                                                                                                                                                                                                                                      ; SEQ ID NO 4
; LENGTH: 56
; TYPE: PRT
; ORGANISM: Human immunodeficiency virus type 1
US-09-779-451-4
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US-09-779-451-41
                                                                                      RESULT 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
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                GENERAL
                              Sequence 2, Application US/10040349B Publication No. US20030082521A1
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Best Local Similarity
                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection o
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Allaway, Graham P. TITLE OF INVENTION: Assay for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Wild, APPLICANT: Allav
                                                                                                                                                                                                                                                                                                                                                                             RIOR APPLICATION NUMBER: US 60/181,543 RIOR FILING DATE: 2000-02-10 NUMBER OF SEQ ID NOS: 77 SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 1900.0300003
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Q ID NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                           16
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                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                           1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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               INFORMATION:
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97.2%;
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                                                                                                                                                                                                                                   Score 193; DB 10;
Pred. No. 1.6e-16;
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Pred. No. 1
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..3e-16;
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                                                                                                                                                                 RESULT 14
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US-10-059-271-84
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                                                                                   Sequence 81, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 84
LENGTH: 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: BROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES
TITLE OF INVENTION: BEING IMMOBILIZED
                               APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: DE 101 06 PRIOR FILING DATE: 2001-02-02 NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS:
SOFTWARE: PatentIn ver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/040,349B CURRENT FILING DATE: 2002-07-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: ALBRE-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: REPKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 01-078-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Polypeptide Inducing Antibodies Neutralizing HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: Peptide
LOCATION: (1)..(177)
OTHER INFORMATION: polypeptide derived from gp41 LAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 177
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                                                                                                                                                                                                                         131 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
                                                                                                                                                                                                                                                                                             Local Similarity 97.2
nes 35; Conservative
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                                                                                                                                                                                                                                            YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                 INVENTION:
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ECKHARD
US, STEFAN
:: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE'SEQUENCES
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Pred. No. 7e-16;
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Pred. No. 5.5e-16;
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CURRENT APPLICATION NUMBER: US/10/059.271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DB 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 81
LENGTH: 232
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE: THEOREMATION. Description of Artificial
                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 82
LENGTH: 254
TYPE: PRT
TYPE: PRT
OTRANISM: Artificial Sequence
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US-10-059-271-82
Search completed: May 16, 2003, 12:10:25 Job time: 16.759 secs
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                                                                                                                                                                                                                    FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
US-10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: peptide US-10-059-271-81
                                                                                                                  Query Match
Best Local Similarity 9/...
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 82, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 99.0
Best Local Similarity 97.2
Watches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: ALBRE-22
CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: ALBRE-22
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                                                                    99.0%;
97.2%;
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Pred. No. 7.3e-16;
""" wismatches 0;
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Pred. No. 8.1e-16;
                                                                                                                                             Mismatches
                                                                                                                                             0;
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                                                                                                                                           0; Gaps
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Title:
Perfect score:
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Maximum Match 100%
'Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
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Maximum DB seq length: 2000000000
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Gapop 10.0 , Gapext 0.5
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194
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1: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1981.DAT:*
3: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT:*
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                                                                                                 /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1990.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1991.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1992.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1993.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1995.DAT:*

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1996.DAT:*

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/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:*
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/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1985.DAT:*
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/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2000.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2001.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA2002.DAT:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match Length DB	Length		ID	Description
_	194	100.0	36	22	АВВ00638	Viral DP178/107-li
2	194	100.0	36	22	ABB02115	Viral core polypep
ω	194	100.0	36	22	AAU13186	DP178-like/DP107-l
4	194	100.0	36	22	AAB77633	Core polypeptide T
ъ	194	100.0	850	16	AAR67724	gp120 from the HIV
σ	192	99.0	268	19	AAY22817	SEQ ID NO. 13 from
. 7	192	99.0	. 268	23	ABG68288	Envelope protein g
œ	192	99.0	855	12	AAR14905	HIV-1 BA-L clone-e
9	192	99.0	855	18	AAW11581	Human Immunodefici
10	192	99.0	855	20	AAW88113	Env protein of the

45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
8	8	8	8	8	æ	8	8	8	8	8	8	æ	8	8	æ	æ	8	8	æ	æ	æ	8	8	œ	9	9	9	9	9	9	9	191	9	9
97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	7	7	97.4	7.	97.4	7.	7.	7.	7.	7.	7.	7.	7.	8	œ	8	8	8	98.5	8	8
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	σ	σ	Ų	œ	Φ	σ	σ	268	ω	ω
22	22	21	21	21	21	21	21	21	21	21	21	.21	21	21	21	21	21	20	20	19	19	18	17	16	23	19	19	10	23	19	23	19	23	19
AAU70741	AAU70179	AAY89999	AAY89983	AAY89982	AAY89777	AAY89735	AAY89692	AAY89424	AAY89242	AAY89136	AAY89135	AAY88729	AAY88665	AAB14533	AAB52818	AAB52688	AAB52655	AAY31974	AAY31955	AAY22805	AAY22912	AAW17011	AAR98398	AAR64364	ABG68321	AAY22850	AAW43069	AAP94507	ABG68287	AAY22816	ABG68284	2281	ABG68325	285
2 trans	viral envelop	polypeptide	polypeptide	polypeptide	polypeptide	polypeptide	polypeptide	e polypeptide	e polypeptide	polypeptide		polypeptide	peptide	solate	/DP178 peptid	78 peptid	8 pepti	gp4	thetic pepti	ID NO. 1 1	ID NO. 10	1 derived	correspond	78 derived f	elope protei	ID NO. 46 fro	120	encoded	elope protei	). 12	te i	ID NO. 9 from	elope protein	SEQ ID NO. 50 from

### ALIGNMENTS

PI	PA	PR	PF	X P	X P X	XX	FT	F T	FH	×	×	ΚW	ΚW	ΚW	XX	DE	XX	Ŋ	×	AC	XX	ID	ABB0	RESU
Antczak JB, Delmedico MK, Erickson JB, Lambert DM, Sista P;	(TRIM-) TRIMERIS INC.	29-FEB-2000; 2000US-0515965.	07-FEB-2001; 2001WO-US03988.	07-SEP-2001.	WO200164013-A2.	/note= "C-terminal amide"	Modified-site 36	<pre>Modified-site 1 /note= "N-terminal is substituted by Ac"</pre>	Key Location/Qualifiers		Virializa	infection.	p41; HR]	Human immunodeficiency virus; HIV; respiratory syncytial virus; RS		Viral DP178/107-like region peptide T720.		03-JAN-2002 (first entry)		ABB00638; ·		ABB00638 standard; Peptide; 36 AA.	АВВ00638	ULT 1

WPI; 2001-514829/56

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RESULT 2
ABB02115
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-LIAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
                                                                                 Disclosure; Page 337; 587pp; English
                                                                                                                                                                                                                                                                                                                                            WO200164013-A2
                                                                                                                                                                                                                                                                                                                                                                       Viridiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Viral core
                                                                                                                           Heptad repeat region peptide analogs useful for fusion, useful for treating HIV and Respiratory
                                                                                                                                                                      WPI; 2001-514829/56
                                                                                                                                                                                                 Antczak
                                                                                                                                                                                                                                                                                    07-FEB-2001; 2001WO-US03988.
                                                                                                                                                                                                                                                                                                                07-SEP-2001
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                                                                                                                infection
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                                                                                                                                                                                                                                                         29-FEB-2000; 2000US-0515965
                                                                                                                                                                                                                                                                                                                                                                                               infection
                                                                                                                                                                                                                                                                                                                                                                                                             virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fusion,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Heptad repeat region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   specification.
                                                                                                                                                                                                                                                                                                                                                                                                                          immunodeficiency virus; HIV; respiratory syncytial virus;
                                                                                                                                                                                                 JB,
                                                                                                                                                                                                                             TRIMERIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat region peptide analogs useful for inhibiting virus/cells useful for treating HIV and Respiratory Syncytial Virus
                                                                                                                                                                                                                                                                                                                                                                                                             heptad repeat region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      polypeptide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                 Delmedico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         relates to isolated analogues of the heptad repeat region 8 and DP107. DP178 and DP107 correspond to amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  587pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ
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                                                                                                                                                                                                 Erickson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 194; DB 22;
Pred. No. 2.9e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NO:
                                                                                                                                                                                                                                                                                                                                                                                                            transmembrane protein; gp41; HR1; HR2;
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                                                                                                                                                                                       , дв
                                                                                                                                                                                                 Lambert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22;
                                                                                                                           inhibiting virus/cells
Syncytial Virus
                                                                                                                                                                                                 DM,
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RESULT 3
AAU13186
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Best Local :
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         activity. The peptides of the invention (AMIJ2559-AMU14009) comprise DP178-like and DP107-like peptides. The DP178 peptide corresponds to amino acids 639-673 of the transmembrane protein gp41 from human immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide corresponds to amino acids 558-595 of gp41 from HIV-1LAI. The invent also relates to a method of identifying compounds that inhibit the formation of or disrupts a DP107/DP178 complex. The method comprises detecting the formation of a DP107/DP178 complex, both in the presen or absence of a test compound, in a reaction mixture containing DP10 and DP178 peptides. The method is useful for identifying compounds, and DP178 peptides. The method is useful for identifying compounds.
                                                                                                                                                                                                                                              Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antiviral or intracellular modulatory activity, by detecting the formation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided the energification.
                                                                                                                                                   The present invention relates to peptides which exhibit anti-retroviral activity. The peptides of the invention (AAU12559-AAU14009) comprise
                                                                                                                                                                                                Disclosure; Page 65; 259pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUL-2000; 2000WO-US35727
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and/or with peptides derived from them.
normal infectivity of viruses such as R
                                                                                                                                                                                                                                                                                                           WPI; 2001-442157/47.
                                                                                                                                                                                                                                                                                                                                                                      (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                     09-JUL-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus 1 isolate LAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antifusogenic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anti-retroviral; DP178-like;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DP178-like/DP107-like peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infectivity of viruses such as RSV and HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                      Lackey JW,
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                                                                                                                                                                                                                                complex
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                     99US-0350841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antiviral; HIV transmission;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                          Erickson JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "N-terminal is substituted by
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 194; DB 22;
Pred. No. 2.9e-17;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                          Lawless
which may
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                                                                                                                                                                                                                                                                                                                                          MK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mutant; mutein
                                                                                                                                                                                                                                                                                                                                           Merutka
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                                                                                        The invention
                                                        comprises
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RESULT 4
AAB77633
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                    The present sequence is a core polypeptide which may be linked to an enhancer peptide to form a novel hybrid polypeptide. The hybrid polypeptide exhibits enhanced pharmacokinetic properties relative to those exhibited by the core polypeptide when introduced into a living system. It is used to increase the in vitro or ex vivo half-life of the core polypeptide. The hybrid and core polypeptides can be used for modulating fusogenic events and intracellular processes involving coiled-coil peptide interactions. Other uses include preventing, treating and/or diagnosing disorders involving fusion events (e.g.
intracellular processes involving coiled coil peptides (e.g. bacterial infections) and viral infections that involve cell-cell and/or virus-cell fusion (e.g. viral infections caused by human immunodeficiency virus, respiratory syncytial virus, Epstein-Barr virus, hepatitis B virus, Mason-Pfizer virus and polio virus). The enhancer peptide sequence increases the half-life and reduces the clearance rate of therapeutic peptides, which increases their efficacy and minimises the incidence and severity of adverse side effects. In addition, this increases the sensitivity of the diagnostic procedure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antifusogenic, antiviral or intracellular modulatory activity. The DP178-like/DP107-like peptides are useful to inhibit human and non-huretroviral, particularly HIV, transmission to uninfected cells. The present sequence represents one of the DP178-like/DP107-like peptides of the invention.
                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 44; 151pp; English.
                                                                                                                                                                                                                                                                                                                                                                                    New hybrid polypeptide, e.g. viral infections, opolypeptide -
                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-147136/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Barney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-JUL-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    virucide; hepatotropic; antiinflammatory; hybrid polypeptide; coiled-coil peptide interaction; fusion-related disorder; bacterial infection; viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Core polypeptide; virucide; hepatot:
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                                                                                                                                                         modulation of neurotransmitter exchange and sperm-egg fusion),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TRIM-) TRIMERIS INC.
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nes 36; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                    , useful for preventing, treating and comprises an enhancer peptide linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Merutka
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antiviral; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВM
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                                                                                                                                                                                                                                                                                                                                                                                                      diagnosing
to a core
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RESULT 5
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Best Local Similarity
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Best Local
                                                                                         Matches
                                                                                                                                                                                                                                    This protein is the gp120 (envelope glycoprotein) from the GNEB isolate of HIV-1 (human immunodeficiency virus type 1). There are neutralising epitopes in the V2 and C4 domains of gp120, in addition to the neutralising epitopes in the V3 domain. Although the amino acid sequences of the neutralising epitopes in the V2, V4 and C4 domains are variable, the amount of variation is highly constrained. This facilitates the design of HIV subunit vaccines that can induce antibodies that neutralise the most common HIV strains for a given geographic region. This invention provides a multivalent gp120 subunit vaccine where the gp120 present in control of variation is from at least two HIV isolates which have different amino acid control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the
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                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 23; Page 27-30; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                analysis, prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Use of HIV gp 120 polypeptide(s) -
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N-PSDB; AAQ76018.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   веrman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gp120 from the HIV GNE8 isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR67724;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR67724 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9428929-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in which they are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC
  632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                           ب
                         YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF
YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                       sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunodeficiency virus; gp120; glycoprotein;
GNE8 isolate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36
                                                                                                                                                                              850 AA;
                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nakamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93US-0072833
                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94WO-US06036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         used.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                           100.0%;
                                                                                                                                                                                                                       neutralising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and therapy of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             850
                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 194; DB 22;
Pred. No. 2.9e-17;
                                                                                                         Score 194; DB 16;
Pred. No. 9.5e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA
                                                                                                                                                                                                                       epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV infection
                                           36
  667
                                                                                                                                DB 16;
                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                       these
                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                probes
                                                                                                                           Length
                                                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                       regions.
                                                                                                                                  850;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the
                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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RESULT 6 AAY22817

AAY22817 standard; Protein; 268

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                                                                        Query Match
Best Local S
Matches 35
                                                                                                                                                                                    prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable forms of "floppy" peptides or proteins.
                                                                                                                                                                                                                                                                                                                                                         Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY22871, AAY22888 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that includes an immunosition of the constraints.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 on termini of octa:peptide - derived from human immunodeficiency virus 9p41 protein, useful in vaccines for treatment and prevention of infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Braisted A, Wells JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9820036-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV; gp41 protein; constrained helical peptide; HIV vaccine; antibody; viral membrane fusion; viral infeligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY22817;
                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 11; Page 152-153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Production of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
168
                                    1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSIIYSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                          1 Similarity
35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13 from WO9820036.
                                                                                                                                                    268
                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         constrained helical peptide(s) by linking side chains
octa:peptide - derived from human immunodeficiency
                                                                                                                                                    AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97US-0876698
96US-0743698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97WO-US20069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           constrained helical peptide;
viral membrane fusion; viral
                                                                                        99.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          McDowell RS,
                                                                        Score 192; DB 19;
Pred. No. 4.7e-16;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           infectivity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV infection;
                                                                                                              Length 268;
                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Starovasnik MA;
                                                                            0,
                                                                            Gaps
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RESULT 7 ABG68288

AAR14905;

0;

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AAR14905
ID AAR1
                                                                                                                 Вþ
                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                The invention relates to cyclic peptides (A) with a constrained helical CC conformation, derived from gp41 (glycoprotein 41, a viral envelope CC protein) protein of human immunodeficiency virus (HIV). The cyclic CC peptides have formulas given in the specification part of which are derived from a consensus sequence of gp41 derived from HIV clades A, B, CC, D, E or O. The peptides are used to cause induction of a specific cimmune response, resulting in antibodies that prevent virus-induced CC immune response, resulting in antibodies that prevent virus-induced CC immune response, resulting in antibodies that prevent virus-induced CC of, HIV infection, either as antifusion/anti-infection agents or, CC vaccine) to raise antibodies. The antibodies may be used for diagnosis or prevention/treatment of HIV infection (i.e. acquired immunogen (including as vaccine) to raise antibodies. The antibodies may be used for diagnosis or prevention/treatment of HIV infection (i.e. acquired immunogen clincured cases of health care accidents. The peptides can be based on specific HIV cases of health care accidents. The peptides can be based on specific HIV cases of health care accidents of them should cover a wide range of protection. The present sequence is gp41 protein from a particular cover.
                                                                                                                                                                                                      Query Match S
Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JUN-1997;
06-NOV-1996;
16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency virus type 1 clade B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               viral envelope protein; vaccine; virucide; anti-HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIV: glycoprotein; gp41; antigen; helical conformation; virus induced membrane fusion; acquired immunodeficienc
  AAR14905 standard;
                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Column 147-150; 175pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New cyclic peptides from human immune deficiency virus 9p41, treatment or prevention of HIV infection, are constrained to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-487624/52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Braisted AC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US6271198-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Envelope protein gp41 from HTV clade B strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-OCT-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG68288 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GETH ) GENENTECH INC
                                                                                                            168 YTSIIYSLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                                                                                                            1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                         1 Similarity
35; Conser
                                                                                                                                                                                                                                                                                              268 AA;
                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        conformation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-049787P.
96US-0743698.
97US-0876698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0965056
  Protein; 855 AA
                                                                                                                                                                                                                         99.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                268
                                                                                                                                                                                                      Score 192; DB 23;
Pred. No. 4.7e-16;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunodeficiency syndrome;
                                                                                                                                                                                                                                                   Length 268;
                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Starovasnik MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               င်
                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  have
                                                                                                                                                                                                           Gaps
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RESULT
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                                                                                                                                                                                                                                                                                                                          atches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             A HindIII fragment of unintegrated viral DNA representing the HIV-1 (BA-L) genome was cloned by standard techniques into lambda phage charon 28 DNA from total DNA of peripheral blood macrophages infected with and producing HIV-1 (BA-L). A positive clone was selected by hybridisation using a HIV-1 envelope probe. This clone, designated BA-L1, contained the entire env gene. The insert was subcloned and sequenced and the amino acid sequence deduced from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human
viral
                19-NOV-1996.
                                         US5576000-A.
                                                                Human immunodeficiency
                                                                                                                             Human Immunodeficiency Virus-1 strain
                                                                                                                                                        25-MAR-1997
                                                                                                                                                                                  AAW11581;
                                                                                                                                                                                                      AAW11581 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                  US Government-owned NTIS applications to prevent clashes with one granted patent numbers. For further information please visit the web site at www.derwent.com/dwpi/updates/ntis_us.html.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; Fig 9; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              usetul in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US HIV-1 isolates MN-ST1 and BA-L, ENV protein and DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAQ14753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Reitz M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (USSH ) NAT INST OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-OCT-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-OCT-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-OCT-1991.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus-1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-DEC-2001
05-FEB-1992
                                                                                                                                                                                                                                                                         636
                                                                                                                                                                                                                                                                                                                                                                                                                                        (Note: Revised entry submitted to correct the patent number format
                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                 -
                                                                                         gene;
                                                                                                                                                                                                                                                                       YTSIIYSLIEESQNQQEKNEQELLELDKWASLWNWF 671
                                                                                                                                                                                                                                                                                              YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1991-346752/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BA-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunodeficiency virus; United States; MN isolate; AIDS;
                                                                                                                                                                                                                                                                                                                         1 Similarity
35; Conserv
                                                                                                       immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             therapeutics, vaccines and diagnostic tests
                                                                                         vaccine.
                                                                                                                                                                                                                                                                                                                                                                             855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone-encoded env
                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     `(updated)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                             A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90US-0599491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90US-0183830
                                                                                                    deficiency
                                                                                                                                                                                                                                                                                                                                     99.0%;
97.2%;
                                                                virus type
                                                                                                    syndrome;
                                                                                                                                                                                                        855
                                                                                                                                                                                                                                                                                                                                    Score 192; DB 12;
Pred. No. 1.7e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein
                                                                                                                                                                                                        AA
                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                (strain BA-L)
                                                                                                    AIDS;
                                                                                                                             BA-L
                                                                                                   envelope protein;
                                                                                                                            envelope protein.
                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                            ongoing
                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                going US
Derwent
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                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                RESULT 10
AAW88113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PD XX PF XX PR PR PR PR
                                                                                                                            В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tq Tq
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DR
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
17-OCT-1990;
25-FEB-1993;
15-FEB-1995;
14-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A HindIII fragment of unintegrated viral DNA representing the BA-L genome was cloned into lambda phage Charon 28 DNA from total DNA of peripheral blood lymphocytes infected with and producing HIV-1 (BA-L) A positive clone was selected by hybridisation using a HIV-1 env probe. This clone, designated BA-L1, was found to contain the entire gene for the envelope protein on a 2.8 kb HindIII-xbal fragment and a 0.4 kb EcoRI-HindIII fragment. When cloned together
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-OCT-1990;
25-FEB-1993;
15-FEB-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           these fragments comprise the env gene, as well as the coding regions for rev and the rev-responsive element of env, both necessary for efficient expression in eukaryotic cells. The claimed recombinantly produced envelope protein can be used as an immunogen for raising antibodies against HTV.
                                                                                                                                                                                           Human
                                                                                                                                                                                                                                                                                   09-APR-1999
                                                                                                                                                                                                                                                                                                           AAW88113;
                                                                                                                                                                                                                                                                                                                                     AAW88113 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Fig 9; 86pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated envelope equivalents - useful a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1997-011206/01.
N-PSDB; AAT58551.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Franchini G, Popovic M,
                                                              14-MAY-1996;
                                                                                                                US5869313-A
                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                         Env protein of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (USSH ) US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-OCT-1990;
                                                                                                                                                                                                                                                                                                                                                                                                    636 YTSIIYSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                HIV-1; HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                           1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                        immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ents - useful as immunogens of US clinical isolates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reitz MS;
                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                  strain BA-L; env protein; vaccine; HIV infection; immunogen; HIV-1 d
90US-0599491.
93US-0022835.
95US-0388809.
96US-0647714.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gallo RC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90US-0599491.
93US-0022835.
95US-0388809.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90US-0599491
                                                              96US-0647714
                                                                                                                                        /note= "Gln encoded
                                                                                                                                                                                                                                                         BA-L strain of Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                99.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein of HIV-1 strain BA-L and recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gartner
                                                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                        type
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 192; DB 18;
Pred. No. 1.7e-15;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                    ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for vaccines and antibody prodn
                                                                                                                                        Ьy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lori FC,
                                                                                                                                        CG
                                                                                                                                                                                                                  HIV-1 diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                  671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Markham PD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 855;
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Gaps

0

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RESULT 11
AAY22854
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents the envelope protein of the BA-L (ATCC 40890) strain of Human immunodeficiency virus type 1 (HTV-1) strain MN-ST1. BA-L is more typical of United States isolates of HIV-1 than previously known strains. Recombinant, complete env protein of the BA-L strain is used as a vaccine component and for immunotherapy of existing HTV infections, to detect HTV-specific antibodies, e.g. in donated blood, and as an immunogen to raise specific antibodies, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA encoding env protein of the human immune deficiency virus isolate BA-L - useful for producing protein for use in vaccines, assay reagent and to generate antibodies
           Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention of infection
                                                                                                                        Braisted A,
                                                                                                                                                                               16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                       05-NOV-1997;
                                                                                                                                                                                                                                                  14-MAY-1998
                                                                                                                                                                                                                                                                              W09820036-A1
                                                                                                                                                                                                                                                                                                        Human immunodeficiency
                                                                                                                                                                                                                                                                                                                                 HIV: gp41 protein; constrained helical peptide; HIV vaccine; antibody; viral membrane fusion; viral infeligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY22854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY22854 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1 diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Fig 9A-C; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Franchini G,
                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                    19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Popovic M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (USSH ) US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        636 YTSIIYSLIEESQNQQEKNEQELLELDKWASLWNWF 671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1999-152779/13
DB; AAX04767.
                                                                               1998-286866/25
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Ö
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35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                        50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       855 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEPT HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Reitz MS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                        Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallo RC,
                                                                                                                                                                              97US-0876698
96US-0743698
                                                                                                                                                                                                                       97WO-US20069
                                                                                                                                                                                                                                                                                                                                                                                                        WO9820036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .99.0%;
                                                                                                                                                                                                                                                                                                        virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              & HUMAN SERVICES
                                                                                                                          McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gartner S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 192; DB 20;
Pred. No. 1.7e-15;
Wismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lori FC,
                                                                                                                        Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Markham PD;
                                                                                                                                                                                                                                                                                                                                                                           HIV infection;
                                                                                                                                                                                                                                                                                                                                                               infectivity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 855;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                          Starovasnik MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                             ABG68325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CC Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus CC (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins CC of known HIV virus strains (AAY22810, AAY22871, AAY22880 AAY22880 and CC AAY22903 represent consensus sequences of various sections of the gp41 CC protein). Sequences derived from the peptides are used to produce CC constrained helical peptides of the invention. The constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal CC maino acids have a side-chain that includes a group able to form an amide condition, and cyclising the octapeptide by reacting the specified side-chain CC residues with a difunctional linker to produce two amide bonds.

CC The constrained helical peptides are used to treat or prevent HIV constrained helical peptides are used to treat or prevent HIV constrained helical peptides are used to treat or prevent HIV constrained helical peptides are used to treat or prevent HIV constrained helical peptides are used to treat or prevent HIV constrained helical peptides are used to treat or prevent HIV constrained helical peptides are used to treat or prevent of constrained helical peptides are used to treat or prevent of constrained helical peptides are in affinity purification. Other constrained helical peptides are in affinity purification. Other constrained helical peptides are in affinity purification. Other constrained helical peptides are in affinity purification of available, e.g. replacements for protein A in immunoglobulin constrained helical peptides are in affinity purification. Other constrained helical peptides are in affinity protein is not readily constrained believed from phage display libraries, or as stable forms of "floppy" peptides or proteins.
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                     16-JUN-1997;
06-NOV-1996;
16-JUN-1997;
                                  New cyclic peptides from human treatment or prevention of HIV alpha-helical conformation -
                                                                                                                                                                                                                                                                                                                                                        05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                  07-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunodeficiency virus type 1 clade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        viral envelope protein; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HIV; glycoprotein; gp41; antigen; helical conformation;
virus-induced membrane fusion; acquired immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG68325 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 11; Page 192-193; 279pp; English.
                                                                                                                        WPI; 2002-487624/52
                                                                                                                                                                   Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                         US6271198-B1
                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            168 YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
35; Conser
                                                                                                                                                                                     AC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein gp41 from HIV clade B strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                     97US-049787P.
96US-0743698.
97US-0876698.
                                                                                                                                                                                                                                                                                                                                                        97US-0965056.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98.5%;
97.2%;
                                                                                                                                                                                         ĮK,
                                                                                                                                                                                         McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 191; DB 19; Pred. No. 5.4e-16;
                                                          immune deficiency virus gp41, infection, are constrained to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            virucide; anti-HIV
                                                                                                                                                                                         Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                       JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 233;
                                                                                                                                                                                         Starovasnik MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                               useful for have
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Disclosure; Column 207-208; 175pp; English

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RESULT 13
AAY22813
OS X K K K K X E X D X C X D I D
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  preferably where associated with a carrier, as an immunogen (including vaccine) to raise antibodies. The antibodies may be used for diagnosis prevention/treatment of HIV infection (i.e. acquired immunodeficiency syndrome, AIDS), e.g. prevention of mother-to-child transmission or in cases of health care accidents. The peptides can be based on specific H strains, e.g. breakthrough isolates of HIV that have developed during vaccine trials, so a combination of them should cover a wide range of protection. The present sequence is gp41 protein from a particular HIV clade used to derive a consensus sequence of gp41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to cyclic peptides (A) with a constrained helical conformation, derived from gp41 (glycoprotein 41, a viral envelope protein) protein of human immunodeficiency virus (HIV). The cyclic peptides have formulas given in the specification part of which are derived from a consensus sequence of gp41 derived from HIV clades A, B, C, D, B or O. The peptides are used to cause induction of a specific immune response, resulting in antibodies that prevent virus-induced membrane fusion. The peptides are used to treat subjects with, or at risolf. If the control of                                                                                                                                                       Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus 9p41 protein, useful in vaccines for treatment and prevention
                                                                                                                                                                                                                                                                                                                                                    Braisted A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV; gp41 protein; constrained helical peptide; HIV infectio vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                   of infection
                                                                                                                                                                                                                                                                       WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                             Wells JA;
                                                                                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W09820036-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO. 9 from WO9820036.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY22813;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY22813 standard; Protein; 268
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                       Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-0876698.
96US-0743698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97WO-US20069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.5%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                    McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 191; DB 23;
Pred. No. 5.4e-16;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA.
                                                                                                                                                                                                                                                                                                                                                    Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                    Starovasnik MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HΙV
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Peptides AAY22805-Y22917 (HIV). Specifically, AAY

2917 are derived AAY22810-Y22910

from Human are derived

n Human immunodeficiency virus derived from gp41 proteins

The invention relates to cyclic peptides (A) with a constrained helical conformation, derived from gp41 (glycoprotein 41, a viral envelope protein) protein of human immunodeficiency virus (HTV). The cyclic

New cyclic peptides from human treatment or prevention of HIV alpha-helical conformation -

immune deficiency virus infection, are constrain

constrained to

useful have

for

Disclosure; Column 141-142; 175pp; English.

Claim 11; Page 148-149; 279pp; English.

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Best Local S
Matches 35
                                                                                                                                                                                                                                                                                16-JUN-1997;
06-NOV-1996;
16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable forms of "floppy" peptides or proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY22903 represent consensus sequences of various sections of the 9p41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIV; glycoprotein; gp41; antigen; helical conformation; virus-induced membrane fusion; acquired immunodeficiency viral envelope protein; vaccine; virucide; anti-HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY22903 represent consensus
                                                                                                                                                                                                                Braisted
                                                                                                                                                                                                                                                                                                                                                    05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                    07-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                     US6271198-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type 1 clade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Envelope protein gp41 from HIV clade B strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG68284 standard; Protein; 268 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                             WPI; 2002-487624/52
                                                                                                                                                                                                 Wells
                                                                                                                                                                                                                                                (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l Similarity
35; Conser
                                                                                                                                                                                                                AC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 268 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                                                                                                                                                Judice
                                                                                                                                                                                                                                                                                97US-049787P.
96US-0743698.
97US-0876698.
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97.2%;
                                                                                                                                                                                                                JK,
                                                                                                                                                                                                                McDowell RS,
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Pred. No. 6.3e-16;
1; Mismatches 0,
                                                                                                                                                                                                                Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             203
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                                                                                                                                                                                                                JC,
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                                                                                                                                                                                                                Starovasnik MA;
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RESULT 15
AAY22816
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of, HIV infection, either as antifusion/anti-infection agents or, preferably where associated with a carrier, as an immunogen (including as vaccine) to raise antibodies. The antibodies may be used for diagnosis or prevention/treatment of HIV infection (i.e. acquired immunodeficiency syndrome, ALDS), e.g. prevention of mother-to-child transmission or in cases of health care accidents. The peptides can be based on specific HIV strains, e.g. breakthrough isolates of HIV that have developed during vaccine trials, so a combination of them should cover a wide range of protection. The present sequence is 9941 protein from a particular HIV clade used to derive a consensus sequence of 9941.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptides have formulas given in the specification part of which are derived from a consensus sequence of 9p41 derived from HIV clades A, C, D, E or O. The peptides are used to cause induction of a specific immune response, resulting in antibodies that prevent virus induced membrane fusion. The peptides are used to treat subjects with, or at
                                                                                Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus
                                                                                                                  Claim 11; Page 151-152; 279pp; English.
                                                                                                                                                 production of constrained helical peptide(s) by linking side chains
on termini of octa:peptide - derived from human immunodeficiency
virus gp41 protein, useful in vaccines for treatment and prevention
of infection
                                                                                                                                                                                                                                      WPI; 1998-286866/25
                                                                                                                                                                                                                                                                       Wells
                                                                                                                                                                                                                                                                                     Braisted A,
                                                                                                                                                                                                                                                                                                                                                      16-JUN-1997;
06-NOV-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY22816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY22816 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              168 YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  268 AA;
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                                                                                                                                                                                                                                                                                         Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from W09820036.
                                                                                                                                                                                                                                                                                                                                                      97US-0876698.
96US-0743698.
                                                                                                                                                                                                                                                                                                                                                                                                         97WO-US20069
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            virus.
                                                                                                                                                                                                                                                                                         McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             269 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                         Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                         Starovasnik MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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(HĪV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY228871, AAY22880, AAY22888 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical

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constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily
                                                                                                                                                                                                                                                                                                                                                       peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV approaches the constrained helical peptides are used to treat or prevent HIV approaches.
Sequence
                                                                                        available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for of synthetic antibody clones from phage display libraries, or
                                                                                                                                                                                                                                                                                                       infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain
                                                            forms of "floppy" peptides or proteins.
   269 AA;
                                                                                                                        for isolation
                                                                                               or as stable
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Query Match
Best Local Similarity
                     Matches
\vdash
YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF
                   Conservative
                              98.5%;
97.2%;
                    1.
                              Score 191; DB 19; Pred. No. 6.3e-16;
                     Mismatches
36
                     0
                                        Length
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                     Gaps
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0,

0;

Search completed: May 16, 2003, Job time: 32.4578 secs 11:12:05 В Š

169 YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF

204

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Run on:
                                                                                                               OM protein - protein search, using sw model
May 16, 2003, 11:04:54; Search time 12.1446 Seconds (without alignments) 284.970 Million cell updates/sec
                                                                                                                                                                                            GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
```

Title:
Perfect score:
Sequence:

US-09-623-533A-537
194
1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36

Scoring table:

Searched:

BLOSUM62 Gapop 10.0 , Gapext 0.5

l number of hits satisfying chosen parameters:

283224

283224 seqs, 96134422 residues

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

pir\_73:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	ω	2	1	NO.	Result	
173	175	175	177	178	178	179	179	180	181	181	182	182	182	182	182	183	184	184	187	188	188	189	189	189	189	191	191	191	Score		
89.2	0.	0	۳.		۳.	2.	2.	2	ω	ω	$\omega$	ω.	ω.	Ψ	ω	4.	94.8	4.	6	6	6.	7.	97.4		97.4	98.5	8	98.5	Match	Query	ď
729	852	357	846	843	357	855	853	856	855	357	859	852	358	358	358	445	847	847	357	358	357	861	856	854	851	861	856	443	Length		
سو	ب	2	ب	ب	N	ب	2	ب	ب	N	_	2	N	Ν	N	2	N	N	Ν	2	N	Н	Ь	Ν	N	ᆫ	Н	2	BB		
VCLJKX	VCLJBR	S21992	VCLJND	H44001	S22006	VCLJZR	S54384	VCLJVL	VCLJA2	S22004	VCLJMN	T12016	S70417	S22000	S22002	A41621	S13289	T09448	S21996	S21998	S21994	VCLJLV	VCLJH3	S13288	S33985	VCLJSC	VCLJ3W	C41621	ID		
env polyprotein pr	rotein -	_		rotein p	-	env polyprotein pr	0			_	env polyprotein pr	envelope glycoprot		envelope protein g	envelope protein g	env polyprotein M	m	glycopro	protein		_						env polyprotein pr	polyprotein P	Description		

C; Genetics:

# ALIGNMENTS

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A;Gene: env
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein; glycoprotein; polyprotein; transmembrane prote
C;Keywords: capsid protein; coat protein; glycoprotein; polyprotein; transmembrane prote
F;1-29/Domain: slgnal sequence #status predicted <SIG>
F;30-861/Product: env polyprotein #status predicted <EPP>
F;87,129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,340,356,362,386,396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Accession: B28922
R;Gurgo, C.; Guo, H.G.; Franchini, G.; Aldovini, A.; Collalti, E.; Virology 164, 531-536, 1988
A;Title: Envelope sequences of two new United States HIV-1 isolates A;Reference number: A28922; MUID:88219542; PMID:3369091
                                                                                                                                                C; Superfamily:
                                                                                                                                                                 A; Cross-references:
                                                                                                                                                                                                                                     A; Reference number: A; Accession: $33985
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: B28922
A; Molecule type: DNA
A; Residues: 1-861 <GUR>
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                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-851 <CAR>
                                                                                                                                                                                                                     A;Status: preliminary
                                                                                                                                                                                                                                                          submitted to the EMBL Data A; Reference number: S33979
                                                                                                                                                                                                                                                                                               R; Carlini,
                                                                                                                                                                                                                                                                                                                                 C; Species: human im
C; Date: 19-Mar-1997
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Best Local S
Matches 35
                                                                                          Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                Accession: S33985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Note: host Homo sapiens (man)
Date: 31-Dec-1990 #sequence_revision
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                               polyprotein - human immunodeficiency virus type 1
secies: human immunodeficiency virus type 1, HIV-1
ste: 19-Mar-1997 #sequence_revision 19-Mar-1997 #t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ternate names: coat polyprotein pecies: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polyprotein
633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  643
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YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                        Similarity
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                                                                                                                                          nces: EMBL:Z11530;
type E retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type E retrovirus env polyprotein
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                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                        97.48;
97.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.5%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98.5%;
97.2%;
                                                                                                                                                                                                                                                                           Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human immunodeficiency virus
                                                                                                                                                                 NID:g60192; PIDN:CAA77628.1;
                                                                                                                                                env
                                                                   Score 189; DB 2; Pred. No. 6.8e-15; O; Omatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 191; DB Pred. No. 3.9e 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 191;
                                                                                                                                                                                                                                                                             November
                                                                                                                                              polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-Dec-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          type 1, HIV-1
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                                                                                                                                                                                                                                                                             1991
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3.9e-15;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .9e-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  678
                                                                                                                                                                                                                                                                                                                                 #text_change
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                                                                                                         Length 851;
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                                                                     Gaps
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Cell 40, A; Title:

sequence

of

the

AIDS

O.; Cole,

s.;

Z

17-May-1985 #text\_change

16-Jul-1999

HIV-1

A:Note: host Homo sapiens (man) C:Date: 17-May-1985 #sequence\_revision C:Accession: A03975 R:Wain-Hobson, S.; Sonigo, P.; Danos, Ccell 40, 9-17, 1985

N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 1,

env polyprotein precursor - human

immunodeficiency virus

type 1

(isolate

VCLJLV RESULT

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Дb
                                     QΥ
                                                                                                                                                                                                                                     C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; F;1-30/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                         F;31-511/Product: exterior membrane glycoprotein #status predicted <EXT>F;512-856/Product: transmembrane glycoprotein #status predicted <TMM>F;512-856/Product: transmembrane glycoprotein #status predicted <TMM>F;888.136.141,156.160,186.197,230,234.241,262.276.289.295,301.332,339,356,386,392,397,F;611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                                                                                                              A;Gene: env
C;Superfami
                                                                                                                                                                                                                                                                                                                                                                                                                     nberger, J.A.; Papas, T.S.; Ghrayeb, J.; Chang, N.T.; Ga
Nature 313, 277-284, 1985
A;Title: Complete nucleotide sequence of the AIDS virus,
A;Reference number: A93353; MUID:85111123; PMID:2578615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N; Alternate names:
C; Species: human in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-854 <OBR>
C;Superfamily: type E retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change
C;Accession: S13288
                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-856 <R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
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Nature 348, 69-73, 1990
                                                                                                                                                                                                                                                                                                                                        A; Cross-references: GB:M15654; GB:K02008; GB:K02009;
                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R; Ratner, L.; Haseltine, W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Title: HIV-1 tropism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     env protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: S13288
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                                                                                                 Query Match
Best Local
                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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638 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                             Local
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                                     YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                 Similarity
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                                                                                Conservative
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s13288;
                                                                                               97.4%;
97.2%;
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97.28;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Namazie, A.; Zhao, J.Q.; Diagne,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               env
                                                                                                 Score 189; DB 1;
Pred. No. 6.8e-15;
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                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189;
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.8e-15;
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                                                                                                                 Length 856
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                                                                                Indels
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Wong-Staal,
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                                                                                Gaps
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A; Molecule type: 1
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                                                                                                                                                                                                    envelope protein gp120/gp41 - human immunodeficiency virus type
C;Species: human immunodeficiency virus type 1, HIV-1
A;Variety: isolate 28
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-140, 'X', 142-312, 'X', 314-357 <STE2>
A-Cross-references: EMBL:x61355; NID:g60179
Apperfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: EMBL:X61355; NID:g60179; PIDN:CAA43622.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992 A;Title: Distinct populations of human immunodeficiency virus A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Superfamily: type E retrovirus env polyprotein C; Keywords: AIDS; capsid protein; coat protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A901
A; Accession: A03975
A; Molecule type: DNA
A; Residues: 1-861 <WAI>
                                       A; Accession: S21998
                                                                   A; Reference number:
                                                                                           A; Description:
                                                                                                                                                                                                                                                                        S21998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Reference number: A; Accession: S70421
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A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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A; Variety: isolate 27B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Accession: S21994; S70421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Gene:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-357 <STEl>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: S21994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;517-861/Product: transmembrane glycoprotein #status predicted <TMM>;88,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,411;88,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,411;616,621,630,642,679,755,821/Binding site: carbohydrate (Asn) (covalent) #status predic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genetics:
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Distinct populations of HIV-1 in blood and cerebrospinal fluid mber: S21990
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he EMBL Data Library, July 1991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 188; DB 2;
Pred. No. 3.3e-15;
2; Mismatches 0;
                                                                                                                                                                             20-Feb-1995 #text_change
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envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 27L)
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
C;Accession: S70422; S21996
                                                                    A; Gene: env
C; Superfamily:
                                                                                                                                                                               submitted to the EMBL Data Library
A;Reference number: 216673
A;Accession: T09448
A;Status: preliminary; translated
                                                                                                                                                                                                                                                                                         envelope glycoprotein - human immunodeficiency virus type 1 (strain C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-357 <ST2>
A;Cross-references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1;
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A; Title: Distinct populations of human immunodeficiency
A; Reference number: S70417; MUID:92144209; PMID:1736940
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A;Residues: 1-222,'X',224-358 <STE2>
A;Cross references: EMBL:X61359; NID:960182; PIDN:CAA43630.1; PID:960183
C;Superfamily: type E retrovirus env polyprotein
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A; Residues: 1-847 < PAN>
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AIDS Res. Hum.
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                                                                                                                             A;Cross-references: EMBL:U63632; NID:g1465777; PID:g146578:
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Library, July 1996
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1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF

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R;Steuler, H.; submitted to t
                                                                         C;Date: 20-Feb-1995 \#sequence_revision 20-Feb-1995 \#text_change C;Accession: S22002; S70418
                                                                                                                                                                                            envelope protein gp120/gp41 - human immunodeficiency virus C;Species: human immunodeficiency virus type 1, HIV-1 \,
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C;Date: 19-Mar-1997 #sequence_revision
C;Accession: S13289
                                                                                                                                                       A; Variety: isolate 3L
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perfamily: type E retrovirus env polyprotein

protein; glycoprotein; immunodeficiency;

perfoduct: coat protein gp120 (fragment) #status predicted <Gp1>

perfoduct: coat protein gp41 (fragment) #status predicted <Gp2>

perfoduction fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fragment fra
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A;Title: Evolution of human immunodeficiency virus type 1 nucleotide sequence diversity A;Reference number: A41621; MUID:92107924; PMID:1763038
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N;Alternate names: coat polyprotein gp41; carboxyl end of coat protein gp120
N;Contains: amino end of coat protein gp41; tarboxyl end of coat protein gp120
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Nature 348, 69-7
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A; Residues: 1-847 < OBR>
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nan immunodeficiency virus type 1, HIV-1
r-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
    Storch-Hagenlocher, B.;
he EMBL Data Library, Ju.
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Pred. No. 1.7e-14;
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Pred. No. 2.7e-14;
в.; Wildemann,
July 1991
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                                        B.; Hacke,
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Search completed: May 16, Job time: 12.1446 secs

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envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 20-Feb-1995 **sequence_revision 20-Feb-1995 **text_change C;Accession: S22000 R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W.
                                          γ
                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-358 <STE>
A; Cross-references: EMB
C; Superfamily: type E ri
                                                                                                                                                                                                                                                                                                         R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood.
A;Reference number: S21990
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AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency A;Reference number: S70417; MUID:92144209; PMID:1736940
A;Accession: S70418
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-333,'X',335-358 <STE2>
A;Residues: 1-333,'X',335-358 <STE2>
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A;Molecule type: DNA
A;Residues: 1-358 <STE1>
A;Cross-references: EMBL:X61352; NID:g60186; PIDN:CAA43616.1;
A;Cross-references: EMBL:X61352; NID:g60186; PIDN:CAA43616.1;
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1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF
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	1 ENV_SIVM1 P05885 1 ENV_SIVM1 P05885 1 ENV_HV2D2 P12492 1 ENV_HV2D2 P15831 1 ENV_SIVML P11807 1 ENV_SIVML P19503 1 ENV_SIVSP P24105 1 ENV_HV2CA P27757 1 ENV_HV2CA P27757 1 ENV_HV2CB P17755 1 ENV_HV2D1 P17755 1 ENV_HV2D1 P17755 1 ENV_HV2CG P18040	39.2	39.2	39.2	39.2	39.2	40.7	41.2	42.3	42.8	43.3	43.8	44.3
1 ENV_SIVM1 1 ENV_HV2D2 1 ENV_HV2D2 1 ENV_HV2BE 1 ENV_SIVML 1 ENV_SIVSP 1 ENV_HV2CA 1 ENV_HV2CA 1 ENV_HV2CB 1 ENV_HV2CB 1 ENV_HV2CB 1 ENV_HV2CB	P05885 P12492 P15831 P18094 P11267 P19503 P24105 P27757 P12449 P17755 P17849 P18040	857	851	851	846	768	859	889	880	860	859	885	882
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		ENV_HV2KR	ENV_HV2G1	ENV_HV2D1	ENV_HV2SB	ENV_SIVA1	ENV_HV2CA	ENV_SIVSP	ENV_SIVML	ENV_HV2BE	ENV_HV2D2	ENV_SIVS4	ENV_SIVM1
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### ALIGNMENTS

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T 13-AUG-1987 (Rel. 05, Last sequence update)

DT 13-BUG-1987 (Rel. 05, Last sequence update)

T 15-JUL-1999 (Rel. 38, Last annotation update)

DE Envelope polyprotein GP160 precursor [Contains: Ex-

Tvcoprotein (GP120); Transmembrane glycoprotein (

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                                                                                   RX MEDLINE-85111123; PubMed=2578615; R MEDLINE-85111123; PubMed=2578615; R Rather L., Haseltine W., Patarca R., Livak A Josephs S.F., Doran E.R., Rafalski J.A., Wh A Baumeister K., Ivanoff L., Petteway S.R. Jr. 1 Lautenberger J.A., Papas T.S., Ghrayeb J., C. "Complete nucleotide complete nucleotide nuc
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es; Retroid viruses; Retroviridae; Lentivirus.
                                                                        nucleotide sequence
3:277-284(1985).
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TRANSMEMBRANE GLYCOPROTEIN.

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InterPro; IPR000328; Env_GP41.
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MEDLINE=90317906; PubMed=2370688;
Mork-Higgins D., Cheng-Mayer C., Bauer D., Levy J.A., Dina D.;
"York-Higgins D., Cheng-Mayer C., Bauer D., Levy J.A., Dina D.;
"Human immunodeficiency virus type 1 cellular host range,
"Human immunodeficiency virus type 1 cellular host range,
replication, and cytopathicity are linked to the envelope region
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Polyprotein; Glycoprotein; Transmembrane;
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InterPro; IPR000777; GP120.
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16-OCT-2001 (Rel. 40, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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RESULT 5
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P03375;
21-JUL-1986
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SEQUENCE
                                                                                                      CHAIN
                                                                                                                                    Signal
SIGNAL
                                                                                                                                                                                                        EMBL; M15654; AAA44205.1; -. pir; A03973; VCLJH3. HIV; M15654; ENVSBH102. InterPro; IPR000328; ENV_GP41. InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                         between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
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MEDITNE-#85111123; pubMed-2578615;

MEDITNE-#85111123; pubMed-2578615;

Ratner L., Haseltine W., Patarca R., Livak K.J., Starcic Ratner L., Doran E.R., Rafalski J.A., Whitehorn E.A., Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A., Baumelster K., Ivanoff L., Petteway S.R. Jr., Pearson M. Baumelster K., Ivanoff L., Petteway S.R. Jr., Pearson M. Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.T., Gwong-Staal F.;
                                                                                                                                                              AIDS; Coat
                                                                                                                                                                              Pfam; PF00516; GP120; Pfam; PF00517; GP41;
                                                                                                                                                                                                                                                                                                or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it the European Bioinformatics Institute of There are no restrictions on it used by non-profit institutions as long as its content is in no was used by non-profit institutions as long as its content is in no was used by non-profit institutions as long as its content is in no was used by non-profit institutions as long as its content is in no was used by non-profit institutions as long as its content is in no was used by non-profit institutions as long as its content is in no was used by non-profit institutions as long as its content is in no was used to be a superior of the content in the content is in no was used to be a superior of the content in the content is in no was used to be a superior of the content in the content is in no was used to be a superior of the content in the content is in no was used to be a superior of the content in the content in the content in the content is in no was used to be a superior of the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in the content in th
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Complete nucleotide sequence of the AIDS virus, Nature 313:277-284(1985).
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34; Conservative
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986 (Rel. 01, Last sequence)
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polyprotein GP160 precursor
tein (GP120); Transmembrane
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           virus type 1 (BH10 isolate) (HIV-1).
es; Retroviridae; Lentivirus.
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1.1e-15;
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orn E.A.,
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Best Local S
Matches 35
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                                         Ratner L., Fisher A., Jagodzinski L.L., Mitsuya H., Liou Gallo R.C., Wong-Staal F.;
Submitted (APR-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                    AIDS
             This SWISS-PROT entry is copyright.
                                                                                                                                   Virus
                                                                                       REVISIONS
                                                                                                                                      "Complete nucleotide virus:":
                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                   Viruses; Retroid
NCBI_TaxID=11706;
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GP160 precursor [Contains:
; Transmembrane glycoproteir
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97.28;
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                                                          Jagodzinski L.L., Mitsuya
l F.;
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13-AUG-1987
01-FEB-1996
15-JUL-1999
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01-FEB-1996 (Rel. 33, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Equipment of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the cont
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between the Swiss Institute of Bioinf
the European Bioinformatics Institute.
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MEDLINE=85228248; PubMed=2988795;
Crowl R., Ganguly K., Gordon M., Conroy R.,
Shaw G.M., Wong-Staal F., Reddy E.P.;
"HTLV-III env gene products synthesized in
antibodies present in the sera of AIDS pati
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NCBI_TaxID=11707;
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es; Retroid viruses; Retroviridae; Lentivirus.
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                                                         CARBOHYD
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InterPro: IPR000777; GP120.
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Pfam; PF00517; GP41; 1.
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NCBI_TaxID-82834;
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Shaw G.M., Kong L.I., Weiss S.H., Waters D., Ga
"Viral variability and serum antibody response
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: glycoprotein (GP120); Transmembrane glycoproteir
                                                                                                                      EMBL; K02013;
EMBL; A04321;
                                                                                                                                                            entities requires a license agreement (S or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                           Viruses; Retroid
NCBI_TaxID=11686;
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rPro; IPR000328; ENV_GP41
rPro; IPR000777; GP120.
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MEDLINE=90347835; PubMed=2384920;
Cheng-Mayer C., Quiroga M., Tung J.W., Dina D., Levy J.;
"Viral determinants of human immunodeficiency virus type 1 T-cell
"Viral determinants of cytopathogenicity, and CD4 antigen modulation
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Pfam; PF00516; GP120; Pfam; PF00517; GP41; 1
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Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Polyprotei
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characterization
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Human immunodeficiency v
Viruses; Retroid viruses
NCBI_TaxID=11705;
[1]
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Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R., Markham P.D. Salahuddin S.Z., Wong-Staal F., Gallo R.C., Parks E.S., Parks "Genetic variation in HTLV-III/LAV over time in patients with at risk for AIDS.",
at risk for AIDS.",
Science 232:1548-1553(1986).
Science 232:1548-1553(1986).
HISCOLIANEOUS: ISOLARES WMJ1, WMJ2, AND WMJ3 WERE OBTAINED BLOOD SAMPLES SEQUENTIALLY TAKEN FROM A TWO-YEAR OLD HAITI WAS PERINATALLY INFECTED BY HER MOTHER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1988 (Rel. 09, Created)
01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce.or send an email to license@isb-sib.ch).
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94.48;
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es; Retroviridae; Lentivirus.
EXTERIOR MEMBRANE GLYCOPROTEIN.

BY SIMILARITY.

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MEDILINE=89352108; PubMed=2669897;

Komiyama N., Hattori N., Inoue J., Sakuma S.,

Komiyama v., Hattori N., Inoue J., Sakuma S.,

"Nucleotide sequences of gag and env genes of

HIV-1 and their expression in bacteria.";

AIDS Res. Hum. Retroviruses 5:411-419(1989).
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InterPro; IPR000777; GP120.
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HIV; M21138; ENV$JH3.
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a Japanese isolate o
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Gurgo C., Guo H.-G., Franchini G., Aldovini A., Col
Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. J
"Envelope sequences of two new United States HIV-1
Virology 164:531-536(1988).
-!- MISCELLANEOUS: THE MN ISOLATE WAS TAKEN FROM A
PATIENT IN 1984.
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
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Viruses; Retroid viruse
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polyprotein GP160 precursor [Contains: Exterior membrane
tein (GP120); Transmembrane glycoprotein (GP41)].
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Levy J.A., Dina D., Luciw P.A.;
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Envelope polyprotein GP160 precursor [Contains: i
glycoprotein (GP120); Transmembrane glycoprotein
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SQ SEQUENCE 855 AA; 97438 MW; A3BC20573AAC41A2 CRC64;

Query Match 93.3%; Score 181; DB 1; Length 855;
Best Local Similarity 88.9%; Pred. No. 1.1e-14;
Matches 32; Conservative 3; Fred. No. 1.1e-14;
Matches 32; Conservative 3;
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match I	Length DB	DВ	ID	Description
1	194	100.0	848	15	Q69990	Q69990 human immun
2	192	99.0	838	15	Q03806	human
ω	192	99.0	854	15	Q78225	human
4	192	99.0	855	15	Q03805	Q03805 human immun
51	191	98.5	42	15	069910	human
6	191	98.5	443	15	Q80023	human
7	191	98.5	841	15	041556	human
æ	191	98.5	849	15	Q77368	human
9	191	98.5	849	15	Q8Q851	human
10	191	98.5	851	15	056110	human
11	191	98.5	851	15	Q8Q852	
12	191	98.5	856	15	Q72993	human
13	191	98.5	856	15	041539	_
14	191	98.5	857	15	Q8UL70	human
15	191	98.5	858	15	. 08nr30	Q8u190 human immun
. 16	191	98.5	858	15	Q8UL88	human

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InterPro; IPR000328; Env_GP41.
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Beaver B.;
            Submitted (XXX-1992) to the ENEMBL; M88893; AAA44191.1; ...
Interpro: IPR000328; Env_GP41.
Interpro: IPR000777; GP120.
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Pfam; PF00516; GP120; 1.
Pfam; PF00516; GP120; 1.
AIDS; Coat Protein; Glycoprotei.
SEQUENCE 854 AA; 97186 MW;
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Conley A.J., Kessler J.A., Boots L.J., Tung J.S., Arnold I Keller P.M., Shaw A.R., Emini E.A.; "Neutralization of divergent human immunodeficiency virus variants and primary isolates by IAM-41-2F5, an anti-gp41
                           SEQUENCE FROM N.A.
MEDLINE=94211861; PubMed=7512731;
                                                                                   01-NOV-1996
01-DEC-2001
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AIDS; Coat pro
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041556;
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Proc. Natl. Acad. Sci. U.S.A. 88:11236-11240(1991).
EMBL; M77230; AAB03792.1;
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
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Burger H., Weiser B., Flaherty K., Gulla J., Nguyen P.N., Gib
"Evolution of human immunodeficiency virus type 1 nucleotide
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proc. Natl. Acad. Sci. U.S.A.
EMBL; U06740; AAA19153.1;
InterPro; IPR000328; Env_GP41.
Pfam; PF00517; GP41; 1.
SEQUENCE FROM N.A. STRAIN=C17; MEDLINE=98105804;
                                                                                            Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae;
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NCBI_TaxID=11676;
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Q77368;
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein;
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EMBL; U84814 ARC58844.1; -
InterPro: IPRO00328; Env_GP41.
InterPro: IPRO00777; GP120.
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                                                   Viruses; Retroid
NCBI_TaxID=11676;
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J. Virol. 72.1552-1572......
                                                                                                                duman immunodeficiency
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   FROM N.A
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849 AA;
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                                                                                        viruses;
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Retroviridae;
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Pred. No. 3.6e-15;
1; Mismatches 0;
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3.6e-15;
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AC 05611
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                                                                                                          Viruses; Retroid
NCBI_TaxID=11676;
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STRAIN-KR3026;
Daniels R.S.,
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                                                                                                                                                                                Human immunodeficiency
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SORRIRA
                                                       Conservative
        PRELIMINARY;
                                             98.5%;
97.2%;
                                         Score 191; DB Pred. No. 3.6e 1; Mismatches
Created)
        PRT;
                                             191;
3.
        851
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PROSITE; PS00071; GAPDH; UNKNOWN\_1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane
SEQUENCE 851 AA; 96516 MW; 1CDAC83EE6464531 CRC64; Viruses; Retroid viruses; NCBI\_TaxID=11676; "Diversity of the human immunodeficiency virus ty glycoprotein in San Francisco Men's Health Study MEDLINE=98178716; PubMed=9519894; McCutchan F.E., Sanders-Buell E., Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; EMBL; AF025756; AAC40593.1; Envelope glycoprotein AIDS Res. Hum. Retroviruses 14:329-337(1998). 1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF YTSLIXTLIEESQNQQEKNEQELLELDKWASLWNWF 668 IPR000328; Env\_GP41.
IPR000173; GAP\_dhdrogenase
IPR000777; GP120. (TrEMBLrel. (TrEMBLrel. (TrEMBLrel. Conservative GP120; 1. GP41; 1. 98.5%; 06, 21, Score 191; DB Pred. No. 3.6e 1; Mismatches Last sequence up Salminen DB 15; 3.6e-15; Lentivirus 36 update) M.O., update) 0; type Carr ype 1 envelope
participants."; Length Indels J.K. 851; 0 Gaps

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type

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01-NOV-1996
01-NOV-1996
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STRAIN=C10;
STRAIN=C10;
MEDLINE=98105804; PubMed=9445059;
Connor R.I., Korber B.T.M., Graham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Evidence for the spread of
Korean population.";
Submitted (OCT-2001) to the
EMBL; AJ417426; CAD10138 1:
                                                                 Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                    InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120, 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprote
                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., Schultemaker H., Guillon C., Bedin F., Fouchier R.A.M., Schultemaker H., Submitted (AUG-1995) to the EMBL/GenBank/DDBJ databases EMBL; U34604; AAC54649.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE=96288454; PubMed=8679299;

MEDLINE=96288454; PubMed=8679299;

Guillon C., Bedin F., Fouchier R.A., Schuitemaker H., Gruters

"Completion of nucleotide sequences of non-syncytium-inducing

syncytium-inducing HIV type 1 variants isolated from the same

patient.";
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                                            SEQUENCE FROM N.A.
                                                                                                        ENV
                                                                                                                Envelope
                                                                                                                            01-DEC-2001
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Viruses; Retroid virus
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35; Conser
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856 AA;
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97.2%;
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es; Retroviridae;
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Last annotation updat
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Pred. No. 3.
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Matches 35
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Q8UL70;
Q8UL70;
01-MAR-2002 (TrEMBLrel. 2
01-MAR-2002 (TrEMBLrel. 2
01-JUN-2002 (TrEMBLrel. 2
                                                                                                               Q8UL90;
Q8UL90;
01-MAR-2002
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InterPro;
                             Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
VOBI_TaxID=11676;
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                                                                                        01-MAR-2002
01-JUN-2002
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Pfam; PF00517; GP41; 1.
SEQUENCE 857 AA; 97590 MW;
                                                                                                                                                                                                                                                                                                                                               "Selection on isolation of HIV-1 in peripheral blood monon and Herpesvirus saimiri transformed T-cells is comparable. Submitted (CCT-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AJ418516; CAD10926.1;
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NCBI_TaxID=11676;
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Pfam; PF00517; GP41; 1.
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                                                                             Gp160 protein.
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency
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InterPro; IPR000777; GP120.
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EMBL; U84800; AAC58827.1; -.
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            SEQUENCE FROM
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IPR000777; GP120.
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2 (TrEMBLrel.
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Length

857;

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                                                                                              Query Match 98.5%;
Best Local Similarity 97.2%;
Matches 35; Conservative 1
                                                                                                                                                                                             Zheng N.N., Vella C., Easterbrook P.J., Daniels R.S.;

"Selection on isolation of HIV-1 in peripheral blood mononuclear cells and Herpesvirus saimiri transformed T-cells is comparable.";

Submitted (CCT-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; A4418496; CAD10906.1;

InterPro; IPR000328; Env_GP41.

InterPro; IPR000377; GP120.

Pfam; PP00516; GP120; 1.

Pfam; PF00517; GP120; 1.

Pfam; PF00517; GP41; 1.

SEQUENCE 858 AA; 97600 MW; 444D66881F6C0355 CRC64;
Score 191; DB 15; Length 858; Pred. No. 3.6e-15; 1; Mismatches 0; Indels
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Job time : 32.4578 secs
                                                                                В
                                                                                                                                                                                                                                                                                           Sequence linked to core polypeptides. The enhancer polypeptides are capacitally from HIV-1, HIV-2 and SIV. The enhancer peptides are characteristic pharmacokinetic properties such as increasing the half-life of any core polypeptide that may be introduced into a living system and that can concept function as a pharmacoligically useful peptides are bloactive peptides. The core polypeptides are can concept percention of a disease. The core polypeptide for the treatment or prevention of a growth factor, cytokine, differentiation factor, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for cantifusogenic treatments. Sequences AxX88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences capacity peptide fragments that can be used in the invention. Some sequences and propertide fragments that can be used in the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-136792/12.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon; colony stimulating factor; hormone; angiogenic factor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Barney S,
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                                                                              1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                              1 Similarity
35; Conserv
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Pred. No. 6.5e-17;
' Mismatches 0;
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                                                                                                                                                                                                          The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gg41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor,
                                                                                                             interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 22; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                A new hybrid polypeptide with enhanced comprises enhancer sequence:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Barney S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TRIM-) TRIMERIS INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon; colony stimulating factor; hormone; angiogenic factor.
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                                                                                              form hybrid polypeptides.
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Score 192; DB 21;
Pred. No. 6.5e-17;
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Pred. No. 6.5e-17;
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AAY89136 ID AAY8 XX

AAY89136 standard;

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                 Query Match
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Matches
                                                                                                                          function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interfeukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                       Sequence
                                                                                                                                                                                                                                                                                             pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can
                                                                                                                                                                                                                                                                                                                                                   The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A new hybrid polypeptide with enhanced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1. HIV-2; SIV; pharmacokinetlo; half-life; growth factor; cytokine; viral; anti-fusgenic; differentlation factor; interleukin; interferon; colony stimulating factor; hormone; angiogenic factor.
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and form hybrid polypeptides.
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l Similarity
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Conservative
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97.2%;
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               Score 192;
Pred. No. 6
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            Sequences AAB14532-B14534 and AAB14569-B14602 represent specifically CC claimed peptides derived from the C-helical domain of the gp41 cenvelope glycoprotein from a variety of HIV-1 isolates. The invention CC envelope glycoprotein from a variety of HIV-1 isolates. The invention CC of HIV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or mimics highly CC conserved portions of gp41 which are important in mediating the process CC of viral entry into host cells. Such peptides can correspond to or Mimic the coiled coil solution structure of the N-helical domain CC (the heptad repeat region), or can correspond or mimic the C-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), CC or the gp41 core 6-helix bundle, which is formed by the interaction CC of the N- and C-helical domains of three gp41 proteins. The peptides can be administered either singly or as a combination (particularly a CC combination of N-helical and C-helical domain peptides), and can be combination of N-helical and C-helical peptides), and can be alternately linked together to form a peptide which mimics the CC core of helix bundle. Administration of the peptide which mimics the correct curve sinvly and viral entry. As these portions of gp41 are well control of the peptides against gp41 are well control of the peptides and the control of the peptides are constituted by the interaction of the peptides and the control of the peptides are constituted as the control of the peptides and the control of the peptides and the control of the peptides and the control of the peptides are control of the peptides and the control of the control of the pep
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core 6-helix bundle; viral entry inhibition; immunogenic;
antibody; humoral response; broad spectrum vaccine; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Raising neutralizing antibody response to human immunodeficiency virus comprises administering a polypeptide capable of forming a stable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200040616-A1
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07-JAN-2000; 2000US-0480336
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(WEIS/) WEISS C D.
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Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     composition comprising polyclonal or monoclonal antibodies can be administered to reduce HIV infection of uninfected cells. Antibodies raised against entry-relevant gp41 structures may also be used therapeutically and as tools to further elucidate the mechanism of HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV strains and isolates. The peptide compositions may be administered as a prophylactic or therapeutic vaccine to generate antibodies which reduce or inhibit the ability of HIV to infect uninfected cells. A
                                            sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacolligically useful peptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences ANYB651-Y9055 represent core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon;
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            polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                             The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are
                                                                                                                                                                                                                                                                                                              Disclosure; Page 21; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                      Barney S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9959615-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        colony stimulating factor; hormone; angiogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                hybrid polypeptide with enhanced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Similarity
35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                         . Guthrie KI,
                                                                                                                                                                                                                                                                                                                                                 enhancer sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0082279:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US11219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Merutka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 192; DB 21; Pred. No. 6.5e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Anwer MK,
                                                                                                                                                                                                                                                                                                                                                                    pharmacokinetic properties
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                         Lambert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             envelope protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytokine; viral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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                                                                                                                                                                                                                                                                                                                                            RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                     Wang
WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is a peptide fragment of T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                       05-MAY-1999;
                                                                                             05-MAY-2000;
                                                                                                                       09-NOV-2000
                                                                                                                                              WO200066622-A1
                                                                                                                                                                     Human immunodeficiency
                                                                                                                                                                                                      Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response
                                                                                                                                                                                                                                            T20/DP178 peptide
                                                                                                                                                                                                                                                                     23-FEB-2001
                                                                                                                                                                                                                                                                                             AAB52688;
                                                                                                                                                                                                                                                                                                                  AAB52688 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; Page 24; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor and the modulate inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (USSH ) US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200066622-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus type
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2000-656493/63
                        M,
                                                                                                                                                                                                                                                                                                                                                                                         YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                               YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-656493/63
                                              US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                     Oppenheim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   is used
                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                               2000WO-US12371
                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US12371
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                                                                     99US-0132686
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                                                                                                                                                                                                                                             fragment #66.
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                                                                                                                                                                                                                                                                                                                                                                                                                                         98.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modulate
                                                                                                                                                                     virus type
                      Su
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                      Ś
                                                                                                                                                                                                                                                                                                                   36
                                                                                                                                                                                                                                                                                                                                                                                                                           Score 192; DB 21;
Pred. No. 6.5e-17;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                   A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inflammation
                      Gong W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gong
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                                                                                                                                                                                                       inflammatory response up-regulation;
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                      Gao
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                     ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J,
                     Murphy PM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         corresponding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Murphy PM
                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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RESULT 10
AAB52818
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
         The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an
                                                                                                                                             Claim 14; Page 40; 148pp;
                                                                                                                                                                        Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chemoattractant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                              Wang JM,
                                                                                                                                                                                                                                                                                             (USSH)
                                                                                                                                                                                                                                                                                                                            05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                      05-MAY-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                WO200066622-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antiinflammatory; formyl peptide re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T20/DP178 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB52818;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB52818 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Administration of peptide agents with a sequence corresponding to partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \vdash
                                                                                                                                                                                                                                    2000-656493/63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12; Page 25; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35; Conser
                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                Oppenheim JJ,
                                                                                                                                                                                                                                                                                             DEPT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                      2000WO-US12371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                                                                                                                                          99US-0132686.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ry; T20/DP178; gp41 ectodomain; HIV-1 fusion; receptor family; FPR; inflammatory response
                                                                                                                                                                                                                                                                                             HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T20/DP178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    fragment #97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .98.0%;
97.2%;
                                                                                                                                                                                                                                                                                             & HUMAN
                                                                                                                                                                                                                                                                Su
                                                                                                                                           English.
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l; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                             SERVICES
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                                                                                                                                                                                                                                                                Gong W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ي 192;
ام. 6.
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.5e-17;
                                                                                                                                                                                                                                                                Gao J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36
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                                                                                                                                                                                                                                                                Murphy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                PM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         up-regulation;
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inflammatory response

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subject

RESULT 6
AAY31955

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BSSSSSSSS
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                         οy
                                                                                                                                                   The present sequence represents an N- and C-terminal modified peptide, designated T-20 (or DP-178), corresponding to amino acids 638-673 of the transmembrane protein gp41 of HIV-1 LAI isolate.

The invention relates to methods for the synthesis of peptides, in particular T-20 and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T-20-like peptide. The invention chains to yield the final T-20 or T-20-like peptide. The invention also relates to individual peptide fragments (see AAY31956-73) which act as intermediates in the synthesis of peptides of interest (e.g. T-20), and to particular groups of peptide fragments. The invention control the synthesis of the peptide fragments. The method allows for the large scale, economical production of high
                                                         Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T-20; DP-178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY31955 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 102; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                     Methods of peptide synthesis,
T-20 like peptides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kang M, Bray B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-MAR-1998;
01-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-591038/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TRIM-) TRIMERIS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                           YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                           peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide T-20 (DP-178)..
                                                                                                                36 AA;
                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV-1 LAI; gp41; peptide synthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0045920
98US-0071877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US06230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "N-terminal acetyl" 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note- "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lichty
                                                                     98.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ζ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36
                                                                     Score 192;
Pred. No. 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mader
                                                                                                                                                                                                                                                                                                                                                                                                                                 particularly used to produce T-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                                         Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Merutka
                                                                     DB 20;
                                                         0;
                                                                                    Length 36
                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                  or
                                                         Gaps
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RESULT 7 AAY31974

AAB52655; . 23-FEB-2001

(first entry)

AAB52655 standard;

Peptide;

36

T20/DP178 peptide fragment #33.

Antiinflammatory: T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation;

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SO XX
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                                                                   В
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AAB52655
              RESULT 8
                                                                                                                                    Query Match
Best Local S
Matches 35
                                                                                                                                                                                                                                                       relates to methods for the synthesis of peptides, in particular C- and N-terminal modified T-20 (see AAY31955) and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates (see AAY31956-73) of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T-20-like peptide, followed by deprotection of the side chains to yield the final T-20 or T-20-like peptide. The invention also relates to individual peptide fragments which act as intermediates in the synthesis of peptide fragments which act as intermediates in the synthesis of peptide fragments which act as intermediates in the synthesis of the peptide of interest. The method allows for the large scale,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents a peptide, designated T-20 (or DP-178), that corresponds to amino acids 638-673 of the transmembrane protein 9p41 of HIV-1 LAI isolate. The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T-20; DP-178; HIV-1 LAI; gp41; peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV-1 LAI gp41 T-20 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 9; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Methods of peptide synthesis, particularly used to produce T-20 like peptides \, -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kang M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09948513-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY31974 standard; Peptide;
                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-SEP-1999
                                                                                                                                                                                                                                            economical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TRIM-) TRIMERIS INC
                                                              1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bray B,
                                                                                                                                                                                                                                            production of high purity peptides.
                                                                                                                                                                                                           36 AA;
                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0045920.
98US-0071877.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lichty M,
                                                                                                                                                    98.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36 AA.
                                                                                                                                  Score 192; DB 20;
Pred. No. 6.5e-17;
""matches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mader C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Merutka
                                                                                                                                                                     Length 36;
                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T-20
                                                                                                                                       0,
                                                                                                                                    Gaps
                                                                                                                                       0
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RESULT 4 AAY22912

AAY22912;

AAY22912 standard; Peptide;

36

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Qy
                                                                                                                                                   Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                  AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain
                                                                                                                                                                                                                                                           constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily
                                                                                                                                                 Sequence
                                                                                                                                                                                                available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for synthetic antibody clones from phage display libraries, or synthetic antibody clones from phage display libraries, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptides AAY22805-Y22917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 233-234; 279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Braisted A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9820036-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV; gp41 protein; constrained helical peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                   1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                    of "floppy"
                                                                         35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       es AAY22805-Y22917 are derived from Human immunodeficiency virus Specifically, AAY22810-Y22910 are derived from gp41 proteins will virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibody; viral membrane fusion; viral infectivity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108
                                                                                                                                                 36 AA;
                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0876698
96US-0743698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from W09820036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97WO-US20069
                                                                                                                                                                                    peptides
                                                                                         98.0%;
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                                                                                                                                                                                      or
                                                                      Score 192; DB 19;
Pred. No. 6.5e-17;
1; Mismatches 0;
                                                                                                                                                                                    proteins.
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                                                                                                           Length 36;
                                                                       Indels
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                                                                                                                                                                                                                       for isolation
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                                                                       Gaps
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36

ДЪ Š

1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF

36 36

Matches Query Match

Local Similarity . hes 35; Conservat

Conservative

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Score 192; DB 19; Pred. No. 6.5e-17; 1; Mismatches 0,

0;

0;

Gaps

0;

Length 36 Indels

98.0%; 97.2%;

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RESULT 5
AAY22805
HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable forms of "floppy" peptides or proteins.
                                                                                                                                                                                                                                                                                      AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that greatent viral membrane fusion or infectivity. Vaccines may contain of constrained helical peptides derived from several different strains of constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different strains of the constrained helical peptides derived from several different several different several different several different several different several different several different several diff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention of infection
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 143-144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV; gp41 protein; constrained helical peptide; HIV vaccine; antibody; viral membrane fusion; viral infeligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-NOV-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9820036-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY22805-Y22917 are derived from Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A,
36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-0876698
96US-0743698
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       279pp; English.
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RESULT 2
AAR98398
ID AAR9
PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA XXX PA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR64364 is designated DP-178, and corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein 9p41. It forms a putative alpha helix at the C-terminal end of the 9p41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein protein interactions, and possess anti-viral activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission to uninfected cells, and can also be used as type and/or subtype specific diagnostic tools.
                                                                      Inhibiting viral transmission, isolated peptide recognised by sequence search motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1995-036105/05
                                                                                                                                                                                                                                                                                                                                                                                         06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DP178 corresponds to residues 638-673 of HIV-1(LAI) gp41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-FEB-1997
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                   Disclosure; Fig 1;
                                                                                                                                                                                WPI; 1996-309517/31.
                                                                                                                                                                                                                                    Matthews
                                                                                                                                                                                                                                                         Barney
                                                                                                                                                                                                                                                                                                             (TRIM-) TRIMERIS INC (UYDU-) UNIV DUKE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-JUN-1996.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR98398 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UYDU-) UNIV DUKE
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nes 35; Conserv
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                                                                                                                                                                                                              v SO,
a TJ,
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                                                                                                                                                                                                                                 Bolognesi DP,
, Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bolognesi DP,
, Wild CT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
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94US-0360107
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                   471pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peptide;
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97.2%;
                                                                                                                                                                                                                                 Lambert DM, Wild CT;
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                                                                                                 e.g.
an AI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                 J. HIV or RSV, to a cell - using
ALLMOTI5, 107x178x4 or PLZIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptides -
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Matches

Conservative

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RESULT 3
AAW17011
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Best Local S
Matches 35
              Query Match
Best Local
                                                                                                                                   AAW17011 represents a peptide designated DP-178, a peptide derived from HIV type 1 glycoprotein 41 (gp41) transmembrane protein. The peptide corresponds to residues 638-673 of gp41. Dp-178 and its derivatives are used in combination with a therapeutic agent, e.g.
                                                                                                                                                                                                                                 Compsns. contg. DP-178 or DP-107 in combination with other therapeutic agent – useful for treatment of HIV infection, inhibiting replication or transmission of HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The sequences given in AAR98398-408 represent peptides which exhibit antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide structures. These peptides are recognised by the ALLMOTI5, 107x178x4 and PLZIP search motifs. These peptides may be used to inhibit the transmission of a virus, pref. HIV, influenza virus, or hepatitis B virus, to a cell.
                                                                                           reverse transcriptase, viral protease, cytokine, glycosylation or vira mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting viral replication or inhibiting transmission. They may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV; SIV: human; simian immunodeficiency virus; gl: transmembrane; antiviral; DP-178; DP-107; vaccine;
                                                       Sequence
                                                                                  also be
                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                           WPI; 1997-099886/09
                                                                                                                                                                                                                                                                                                                                                                                                       06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus type 1 LAI isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW17011;
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                                                                                                                                                                                                                                                                                                                     Johnson
                                                                                                                                                                                                                                                                                                                                               (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                           07-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                replication;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV-1 derived peptide useful for treatment of HIV infection
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l Similarity
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                                                       36 AA;
                                                                                  in vaccines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transmission.
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                                                                                                                                                                                                                                                                                                                     Lambert
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             98.0%;
97.2%;
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97.2%;
                                                                                                                                                                                                                                                                                                                     DM;
                                                                               for protecting
                                                                                                                                                                                                         English.
Score 192; DB Pred. No. 6.5e 1; Mismatches
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Pred.
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             192;
No. 6.
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No. 6.5e-17;
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             DB 18;
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                                                                               HIV infection
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Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
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AAR98398
AAW17011
AAY22912
AAY22805
AAY31955
AAY31955
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AAY3195688
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36
HIV-1 derived pept
SEQ ID NO. 1188 from
SEQ ID NO. 1 from
Synthetic peptide
HIV-1 LAI 9941 T-2
T20/DP178 peptide
T20/DP178 peptide
                                                                                                                                                                                                            Description
                                                                                                                                                    DP-178 derived fro DP178 corresponds
                                                                                                                                                                                                                                                                                                                    to have a being printed,
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ALIGNMENTS

al core polyp	197	22			9	4.5
ral core polyp	148	22		8	9	44
ral DP178/107-1	141	22		8	9	43
al DP178/107-1	139	22		8	9	42
ral DP178/107-	139	22		8	9	41
uorescein-label	118	22		8	9	40
ral DP178/107-1	114	22		8	9	39
ral DP178/107-1	110	22		8	9	3 8
ral DP178/107-	83	22		ω.	9	37
al DP178/107-1	062	22		8	9	36
ral DP178/107-1	062	22		8	9	3 5
ral DP178/107-1	062	22		8	9	34
V F1 protein DP	9	22			9	<u>ω</u>
ral DP178/107-1	049	22		8	9	32
ral DP178/107-1	049	22		ω.	9	31
ral DP178/107-1	800	22		ω.	9	30
otin-labelled H	800	22		8	9	29
-1 gp41 pept	202	22		ω.	9	28
-1 gp4	703	22		ω.	9	. 27
i-HIV peptid	296	22			9	26
2 tran	074	22		ω.	9	25
viral	017	22		œ	9	24
e polypeptide	999	21		8	9	23
Ø	866	21		8	9	22
e polypeptide	866	21		ω.	9	21
e polypeptide	977	21		8	9	20
e polypeptide	973	21		8	9	19
e polypeptide	969	21		8	9	18
e polypeptide	942	21		8	9	17
e polypeptide	924	21		8	9	16
e polypeptide	913	21		8	9	15
e polypeptide	913	21		8	9	14
e polypeptide	372	21		8	9	13
polypeptide	AAY88665	21	36	98.0	192	12
HIV-1 isolate LAI	53	21		œ	9	11 .

### RESULT 1 AAR64364 XX FFT FFT FT FT SXX XXXXX antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI; human immunodeficiency virus; transmembrane protein; gp41; alpha helix; leucine zipper; DP-185. 07-JUN-1993; 07-JUN-1994; Synthetic DP-178 derived from HIV-1 isolate LAI has antiviral activity. AAR64364; AAR64364 standard; Peptide; 36 22-DEC-1994 WO9428920-A Modified-site Modified-site 24-AUG-1995 (first entry) 93US-0073028 94WO-US05739 38 /note= /note= Location/Qualifiers "optionally has an amino, acetyl, 9-fluorenylmethoxy-carbonyl, hydrophobic macromolecular carrier gp. attached" "optionally has a carboxyl, amido, hydrophobic or macromolecular carrier gp. attached" AA. or.

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NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 81
LENGTH: 232
TYPE: PAT
ORGANISM: Artificial Sequence
FEATURE:
Search completed: May 16, 2003, 12:10:25 Job time: 15.759 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: peptide US-10-059-271-81
                                                                                                                                 Query Match
Best Local Similarity 97.2
Matches 35; Conservative
                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 97

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 82

LENGTH: 254

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
S-10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 82, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 96.9
Best Local Similarity 97.3
atches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: DE 101 06 295 PRIOR FILING DATE: 2001-02-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: REPKE, HEINRICH
                                                                    1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E OF INVENTION: BEING IMMOBILIZED REFERENCE: ALBRE-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NICOLAUS, STEFAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96.98;
                                                                                                                                                               96.98;
97.28;
                                                                                                                                         Score 190; DB 9; 1
Pred. No. 1.7e-15;
0; Mismatches 1;
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Pred. No. 1.5e-15;
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                                                                                                                                                                               Length 254;
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2 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37

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                                                                                                                                                                                                                                                                                                            ; LENGTH: 56
; TYPE: PRT
; ORGANISM: Human immunodeficiency virus type 1
US-09-779-451-4
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                                                                                US-10-040-349B-2
                                                                                              RESULT 12
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Best Local Similarity
Sequence 2, Application US/10040349B Publication No. US20030082521A1 GENERAL INFORMATION: APPLICANT: Brasseur, Robert
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Best Local Similarity
Matches 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Wild, Carl T.
APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR PELICATION NUMBER: US 60/235,901
PRIOR PELICATION NUMBER: US 60/181,543
PRIOR PELICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
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APPLICANT: Allaway, Graham I
TITLE OF INVENTION: Assay for
FILE REFERENCE: 1900.0300003
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SOFTWARE: PatentIn version 3.0
Q ID NO 41
LENGTH.
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PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
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                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
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                                                                                                                                                                           1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                         YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 51
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2001-08-17
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97.2%;
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97.28;
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for Detection of Viral Fusion Inhibitors
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Pred. No. 2.7e-16;
0; Mismatches 1
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Pred. No. 3.3e-16;
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·US-10-059-271-81
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US-10-059-271-84
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Best Local Similarity
Matches 35; Conserv
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Best Local S
Matches 35
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                                                                           GENERAL INFORMATION:
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CURRENT FILING DATE: 2002-07-09
NUMBER OF SEQ ID NOS: 2
                                                                                       Sequence 81, Application US/10059271 Publication No. US20030082208A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: REPKE, HEINRICH APPLICANT: BUDDE, ECKHARD APPLICANT: NICOLAUS, STEFAN
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APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: polypeptide derived from gp41 LAI
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
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                                                                                                                                                                                                        131 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
                                                                                                                                                                                                                                                                              Local Similarity 97.1 les 35; Conservative
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97.2%;
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Pred. No. 1.1e-15;
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Pred. No. 1.4e-15;
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US-09-854-816-1

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RESULT 8
US-09-854-816-108
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                                                                                                                                                                                                                                                                                                                                      1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
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MOLECULE TYPE: DP178
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
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COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk

COMPUTER: IBM PC compatible
  NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                        APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Andrew C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: Amino Acid
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            INVENTION: Constrained Helical Peptides and Methods of Making Same
SEQUENCES:
                                                                         J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                  J. Kevin Judice
Robert S. McDowell
                                                                                                                                                        Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Christopher Phelan
Melissa A. Starovasnik
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Robert S. McDowell
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97.28;
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                                                           Wells
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                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                           Score 190; DB 10;
Pred. No. 2.1e-16;
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; OTHER INFORMATION: DP178c peptide US-09-848-616-176
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                                                                                                                                                                            CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 176
LENGTH: 37
                                                                                                                                                                                                                                                                                                                                                                                                                                             Publication No. US20 GENERAL INFORMATION:
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                      Query Match
Best Local :
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    Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                  APPLICANT: Bachmann, Martin
APPLICANT: Tissot, Alain
APPLICANT: Tissot, Alain
APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/848,616
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Sebbel, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEPAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 108:
SEQUENCE CHARACTERISTICS:
                                                                                                                      FEATURE:
                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                               TYPE: PRT
  Local Similarity 97.2 les 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94080

COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: WinPatin (Genentech)

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE DESCRIPTION: SEQ ID NO: 108:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: Amino Acid
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/09/854,816
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                                                                                                                                                                                                                                                                                                                                                                                                   Dunant, Nicolas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09848616 o. US20030054010A1
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                    96.9%;
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97.28;
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Score 190; pb ...
No. 2.1e-16;
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Pred. No. 2.1e-16;
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                                       Length 37;
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1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36

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NUMBER OF SEQ ID NOS: 5
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-116-797-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
US-09-493-346-1
                                                   ; NAME/KEY: PEPTIDE
LOCATION: (1)..(36)
; OTHER IMPORMATION: T-20
US-09-796-202-10
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Best Local Similarity 97.2
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CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 1
                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 201-02-28
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.0
SEQ ID NO 10
LENGTH: 36
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Best Local Similarity
Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                          Patent No. US20020068813A1
                                                                                                                                                                                                                                                                APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
FILE REFERENCE: 2048/61010/JPW/SHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Compositions and Methods TITLE OF INVENTION: Infection FILE REFERENCE: 61009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Olson, William C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 equence 1, Application US/09493346 blication No. US20030082185A1 ENERAL INFORMATION:
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TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                            )9-796-202-10
                                                                                                                                                    TYPE: PRT
                                                                                                                  FEATURE:
                                                                                                                                      ORGANISM: unknown
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97.2<del>8</del>;
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 96.9%;
97.2%;
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Pred. No. 2.1e-16;
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Pred. No. 2.1e-16;
 Score 190; DB 10;
Pred. No. 2.1e-16;
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TYPE: PRT
; ORGANISM: Human immunodeficiency virus type
US-09-779-451-5
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Best Local Similarity
Matches 35; Conserv
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                                                                                    Query Match
Best Local S
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                                                                         Matches
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APPLICANT: Mildway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 60/181,543 PRIOR FILING DATE: 2000-02-10
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CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: KR 00-65664 PRIOR FILING DATE: 2000-11-06 NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: YU, YEON GYU
APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: PEPTIDES FOR INHIBITION OF HIV INFECTION FILE REFERENCE: 05823.0198-00000
                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                    TYPE: PRT
                                                                                                                                                                                                                                                                     LENGTH: 36
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                  1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                        Similarity
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                                                                         Conservative
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97.28;
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97.2%;
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Pred. No. 2.1e-16;
                                                                                          Pred.
                                                                                                         Score 190;
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                                                                                  2.1e-16;
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OM protein -

protein search, using sw model

GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Result
No.
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Maximum DB
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq
       length: 0
length: 2000000000
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196
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Gapop 10.0 , Gapext 0.5
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       362588 seqs, 96450795 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published_Applications_AA: *
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: //cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep: *
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     DB
                                               999910
  0 US-09-796-202-10
0 US-09-79-451-5
0 US-09-834-628-1
0 US-09-834-816-1
0 US-09-84-816-1
0 US-09-84-816-17-0
0 US-09-84-616-17-1
0 US-09-779-451-4
1 US-10-040-349B-2
US-10-059-271-81
US-10-059-271-81
US-10-059-271-97
0 US-09-854-816-16
0 US-09-854-816-16
                                                                                                                                                                                                                      US-09-874-475-16
US-10-116-797-1
US-09-493-346-1
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Sequence 4, Appli
Sequence 2, Appli
Sequence 84, Appl
Sequence 81, Appl
Sequence 82, Appl
Sequence 97, Appl
Sequence 16, Appl
Sequence 17, Appl
Sequence 18, Appl
                                                                                            Sequence 10, Appl
Sequence 5, Appli
Sequence 1, Appli
Sequence 108, App
Sequence 176, App
Sequence 176, App
Sequence 41, Appli
Sequence 4, Appli
Sequence 2, Appli
                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                    Sequence 16, Appli
Sequence 1, Appli
Sequence 1, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 1
US-09-874-475-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Petropoulos, Christos
APPLICANT: Parkin, Neil T.
APPLICANT: Whitcomb, Jeanette
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4.5	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20
180	180	180	180	181	181	181	181	182	182	184	184	184	185	187	187	190	190	190	190	190	190	190	190	190	190
	91.8		-																						
269	268	267	46	847	646	619	268	269	268	1231	269	268	233	268	36	1186	1101	861	856	853	519	391	345	345	344
10	10	10	10	10	10	10	10	10	10	9	10	10	10	10	10	9	9	9	10	ø	10	9	10	9	9
US-09-854-816-6	-854-	4-816-	-854-	-242-	œ	-609	816-2	US-09-854-816-28	US-09-854-816-13	US-10-059-271-94	US-09-854-816-12	US-09-854-816-9	816-	US-09-854-816-19	US-09-912-824-1	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242;1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1
Sequence 6, Appli		38, 1	109	ν,	2	Sequence 4, Appli	26,	28,	e 13,	w	12	9, 2	50,	19,	e 1,	Sequence 55, Appl	53,	Sequence 103, App	e 1,	Sequence 33, Appl		93,	Sequence 8, Appli	Sequence 49, Appl	Sequence 1, Appli

# ALIGNMENTS

Sequence 16, Application US/09874475 Publication No. US20020182592A1

CURRENT APPLICATION NUMBER: US/09/874,475
CURRENT FILING DATE: 2001-06-04
NUMBER OF SEQ ID NOS: 16

APPLICANT: Whitcomb, Jeanette
APPLICANT: Huang, Wei
APPLICANT: Huang, Wei
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE
TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS
ETLE REFERENCE: 2793/65166

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us-10-116-797-1
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                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Thes 35; Conserve
                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Fusion Inhibitor Peptide US-09-874-475-16
                              GENERAL INFORMATION:
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING
FILE REFERENCE: 64672-A
                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.1 SEQ ID NO 16 LENGTH: 36
                                                                                                                   Sequence 1, Application US/10116797 Publication No. US20030044411A1
CURRENT APPLICATION NUMBER: US/10/116,797 CURRENT FILING DATE: 2002-10-15
                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                  1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                       1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                       96.98;
97.28;
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Pred. No. 2.1e-16;
0; Mismatches 1;
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                                                   INFECTION
                                                                                                                                                                                                                                                                                                                       Length 36
                                                                                                                                                                                                                                                                                         0;
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

US-09-082-279B-497

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APPLICANT: Anwer, Mohmed
APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
EQ ID NO 497
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-082-279B-498
; Sequence 498, Application US/09082279B
; Patent No. 6258782
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                                                                                                                                ; OTHER INFORMATION: Core polypeptide US-09-082-279B-498
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                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 498
LENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 497, Application US/09082279B Patent No. 6258782
                                                                                Query Match
Best Local Similarity
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                                                                  Matches
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
WITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 35; Conserv
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Guthrie, Kelly
Merutka, Gene
Anwer, Mohmed
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Guthrie, Kelly
Merutka, Gene
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                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96.9%;
                                                                                96.9%;
97.2%;
                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                Score 190; DB 4;
Pred. No. 5.5e-17;
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Pred. No. 5.5e-17;
0; Mismatches 1
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                                                                0;
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                                                                  Gaps
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RESULT 15 US-09-082-279B-603

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Query Match
Best Local Similarity
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                                                                                                                                 ; FEATURE:
; OTHER INFORMATION: Core polypeptide
US-09-082-279B-603
                                                                                                                                                                              SOFTWARE: FastSEQ for Windows
SEQ ID NO 603
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 603, Application US/09082279B Patent No. 6258782
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
                                                                                                                                                                                                                                                                                                               APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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                 1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                    Guthrie, Kelly
Merutka, Gene
Anwer, Mohmed
                                                                                                                                                                                                                                                  FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                      Barney, Shawn
                                                                  Conservative
                                                                                  96.9%;
97.2%;
                                                                  0;
                                                                                   Score 190;
Pred. No. 5
                                                                  Mismatches
                                                                                  5.5e-17
                                                                                                   DB 4;
                                                                                                Length 36;
                                                                  Indels
                                                                  0;
                                                                  Gaps
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Search completed: May 16, 2003, 11:22:13 Job time : 10.1928 secs

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RESULT 10 US-08-554-616-1

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RESULT 11
US-08-485-264A-1
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                                                                                                                                                                                                                       Sequence 1, Applic
Patent No. 6228983
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                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                  est Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO: 1:
APPLICANT: Petteway, Stephen R.
APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF
TITLE OF INVENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING
TITLE OF INVENTION: RESPIRATORY SYNCYTIAL VIRUS TRANSMISSION
NUMBER OF SEQUENCES: 232
                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090 TELEFAX: (212) 869-8864/9741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compaint operating SYSTEM: PC-DC SOFTWARE: Patentin Relaction DATA:
                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 07-JUN-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Bolognesi, Dani P.
APPLICANT: Matthews, Thomas J.
APPLICANT: Wild, Carl T.
TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS
TITLE OF INVENTION: TRANSMISSION
                                                                                                                 APPLICANT:
                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/073,028 FILING DATE: 07-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: New York
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                               Application US/08485264A
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1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                               Matthews, Thomas J. Wild, Carl T. Barney, Shawn O.
                                                                                                                                                                                     Bolognesi, Dani P.
                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                           Lambert, Dennis M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                                                                  96.98;
97.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 190; DB 4;
Pred. No. 5.5e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 36;
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; OTHER INFORMATION: Core polypeptide US-09-082-279B-15
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; MOLECULE TYPE: peptide
US-08-485-264A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-082-279B-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
                                                                                                                                                                                         SEQ ID NO 15
LENGTH: 36
                                  Matches
                                                 Best
                                                                 Query Match
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APPLICANT:
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Best Local
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                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                           APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEDTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
THE BETTERENCE, 7073-043
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                               TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                  FILE REFERENCE:
                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Relear
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/0:
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: COLUZZÍ, LAURA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
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STREET: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC
OPERATING SYSTEM:
                              Local Similarity
les 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
ZIP: 10036-2711
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1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
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Guthrie, Kelly
Merutka, Gene
Anwer, Mohmed
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(212) 869-9741/8864
                                  Conservative
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                                                 96.9%;
97.2%;
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                                               Score 190; DB 4;
Pred. No. 5.5e-17;
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CURRENT APPLICATION DATA:

SOFTWARE:

PatentIn Release #1.0, Version #1.30

APPLICATION NUMBER: US/08/475,668A

07-JUN-1995

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                                                                                                                                                                                                                                                           COUNTY: 10036-2/11
ZIP: 10036-2/11
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
TYPENEM: PC-DOS/MS-DOS
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                   NFORMATION FOR SEQ
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                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/485,551A
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
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                                                                                                              NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 78
                                                       TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                    CITY: New York
STATE: New York
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                                       TELEX:
                                                                       TELEPHONE:
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66141 PENNIE
N FOR SEQ ID NO:
CHARACTERISTICS:
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Lambert, Dennis M.
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                                                       (212) 869-9741/8864
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Patent No. 6093794
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Best Local Similarity 97.3
Matches 35; Conservative
                                                                Matches
                                                                                               Query Match
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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APPLICANT:
                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS: LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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MOLECULE TYPE:
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ZIP: 10036-2711
                                                               Local Similarity 97.1 les 35; Conservative
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               1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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COTUZZI, Laura A. .
COTUZZI, Laura A. .
78
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Langlois, Alphonse J
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                                                                                                                                           peptide
                                                                              96.98;
97.28;
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Release #1.0, Version #1.30
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                                                             Score 190; DB 3;
Pred. No. 5.5e-17;
0; Mismatches 1
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Pred. No. 5.5e-17;
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                                                                Indels
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Matches Query Match

Local Similarity les 35; Conserv

Conservative

96.9%;

Score 190; DB 3; Pred. No. 5.5e-17;

Length 36;

Mismatches

0;

Gaps

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TELEX: 66141 PENNIE NFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:

TELEFAX:

(212) 869-9741/8864

TOPOLOGY: ur

unknown

peptide

STRANDEDNESS:

amino acid

ENGTH:

36 amino acids

TELEPHONE: (212) 790-9090

ATTORNEY/AGENT INFORMATION:

CLASSIFICATION: 424

NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742

7872-026

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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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RESULT 6
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                                                                                                                                                                                                                                         Query Match
Best Local Similarity 97.2
                                                                                                     Sequence 1, Applic Patent No. 6054265
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                                                                                          GENERAL INFORMATION:
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TOPOLOGY: unl
MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: COTUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
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amino acid
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(212) 869-9741/8864
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Langlois, Alphonse J.
VENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
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Lambert, Dennis M. Petteway, Stephen
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Lambert, Dennis M.
                                Barney, Shawn O.
                                              Wild, Carl T.
                                                           Matthews, Thomas J
                                                                        Bolognesi,
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97.2%;
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                                                                                                                                                                                                                                                                   Score 190; DB 3; Pred. No. 5.5e-17;
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US-08-475-668A-1
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                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Barney, Shawn O.
APPLICANT: Lambert, Dennis M.
APPLICANT: Petteway, Stephen R.
APPLICANT: Petteway, Stephen R.
TITLE OF INVENTION: FUSTON-ASSO
TITLE OF INVENTION: TRANSMISSIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. 6060065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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Best Local Similarity
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ZIP: 10036-2/11
COMPUTER READABLE FORM:
COMPUTER: Floppy disk
MEDIUM TYPE: Floppy disk

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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
REGISTRATION NUMBER: 30,74
REFERENCE/DOCKET NUMBER: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Langlois, TITLE OF INVENTION: TITLE OF INVENTION: TITLE OF INVENTION:
                                                              ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS: LENGTH: 36 amino acids
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SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/919,59:
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                                                                                                                                                                                                         STATE: New York
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                                  COMPUTER:
                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                       STREET:
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CITY: New York
   OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                          ADDRESSEE:
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(212) 869-9741/8864
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                                  IBM PC compatible
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PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING INFI
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97.28;
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                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMISSION
                                                                                                                                                                                                                                                                                                          Edmonds LLP
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                                                                                                                              Sequence 1, Application US/09071877 Patent No. 6015881
                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                              Matches
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APPLICANT: METATKA, Gene
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS
FILE REFERENCE: 7872-050
                                                                              APPLICANT: Kang, Myung-Chol APPLICANT: Bray, Brian
                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
08-486-099-1
                                                APPLICANT:
                                                               APPLICANT:
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SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
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STATE: New York
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Mader, Catherine
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Langlois, Alphonse J
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IBM PC compatible
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                                                                                                                                                                                                                                                                                                             96.9%;
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Pred. No. 5.5e-17;
0; Mismatches 1
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                                                            US-08-360-107A-1
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Matches
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                           Query Match
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              Best Local Similarity
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CURRENT FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 19
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                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 1:
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TYPE: PRT
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SCETTERER: Data Clark
                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                        TOPOLOGY: un
                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COruzzi, Laura A.
                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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TELEFAX: 66141 PENNIE
                                                                                                      STRANDEDNESS
                                                                                                                                                                                                             TELEPHONE:
                                                                                                                                                                                                                                                        NAME: Coruzzi, Laura A REGISTRATION NUMBER: 30
                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/0 FILING DATE: 20-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: New York
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                                                                                                                      amino acid
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1155 Avenue of the Americas
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Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wild, Carl T.
Barney, Shawn O.
Lambert, Dennis M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matthews, Thomas J.
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                                                                                                                                                                                                              (212) 790-9090
                                                                         peptide
                                                                                                                                                                                                869-9741/8864
            96.9%;
97.2%;
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMISSION
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Pred. No. 5.5e-17;
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Mismatches
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1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                          /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
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No.	Score	Match L	Length DB	3 ID .	Description
<u>р</u>	190	6	- 1	US-08-073-028-1	Sequence 1, Appli
2	190	96.9	36 3	US-08-486-C	۳,
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4	190	<u>ه</u>		US-08-360-107A	1,
U	190	σ.		US-08-484-223B-	1,
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8	190	6.		US-08-485-551A-	e 1,
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27	190	96.9	36 4	US-08-474-349A-399	Œ

1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36

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US-09-315-304B-15 US-09-315-304B-497 US-09-315-304B-603 US-09-315-304B-630 US-09-315-304B-631 US-09-315-304B-705 US-09-315-304B-1076 US-09-315-304B-1121 US-09-315-304B-1161 US-09-315-304B-1469 US-09-315-304B-1469 US-09-315-304B-1470 US-09-315-304B-1486 US-09-315-304B-1486 US-09-315-304B-1486 US-09-315-304B-1486 US-09-315-304B-1486 US-09-315-304B-1486 US-09-315-304B-1486 US-09-315-304B-1486 US-09-315-304B-1486

# ALIGNMENTS

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; MOLECULE TYPE: peptide US-08-073-028-1
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US-08-073-028-1
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                  Query Match
Best Local (
 Matches
                                                                                                                                                                                            TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:

NAME: COCIUZZI, LAUCA A.

REGISTRATION NUMBER: 30,742

REFERRNCE/DOCKET NUMBER: 7872

TELECOMMUNICATION INFORMATION:

TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                         TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1993 CLASSIFICATION: 514
Match 96.9%;
Local Similarity 97.2%;
nes 35; Conservative
                                                                                                       TOPOLOGY:
                                                                                                                     TYPE: amino acid
STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1155 Avenue of the Americas
                                                                                                                                                                                                                              (212) 869-8864/9741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
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                                                                                                         unknown
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Score 190; DB 1;
Pred. No. 5.5e-17;
0; Mismatches 1
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 Indels
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RESULT 15
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                                                                                                                                                                                       WEDLINE-96013815, PubMed-7474132;
WARDLINE-96013815, PubMed-7474132;
WA Duensing T.D., Fang H., Dorward D.W., Pincus S.H.;
WI "Processing of the envelope glycoprotein gp160 in immunotoxin-
resistant cell lines chronically infected with human immunodeficiency
virus type 1.";
WI J. Virol. 69:7122-7131(1995).
REMBL; L42371; AAA96326.1; -.
REMBL; L42371; AAA96326.1; -.
RINTERPO: IPRO00328; Env_GP41.
DR InterPro: IPRO00328; Env_GP41.
DR InterPro: IPRO00377; GP120.
DR Pfam; PF00516; GP120; 1.
DR Pfam; PF00517; GP41; 1.
DR Pfam; PF00517; GP41; 1.
DR Pfam; PF00516; GP120; 1.
                                                                                       Query Match 94.9
Best Local Similarity 94.4
Matches 34; Conservative
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Best Local Similarity 94.4%;
Matches 34; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           078705; PRELIMINARY; PRT; 854 AA. 978705; 01-NOV-1996 (TrEMBLrel. 01, Created) 01-NOV-1996 (TrEMBLrel. 01, Last sequence update) 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Envelope glycoprotein gp120.
1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
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Pred. No. 3.6e-14;
1; Mismatches 1;
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Search completed: May 16, 2003, 11:19:49 time: 27.3124 secs

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RESULT
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                                                                                                                                                                                                                                                                                          Submitted (JUN-1996) to the EMBL/GenBank/DDBJ EMBL; D86068; BAA12995.1; -
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP12; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; AIDS; Coat protein; G1ycoprotein; 238042A234C5668
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-90101366; PubMed=1688473; Cloyd M.W., Moore B.E.; "Spectrum of Biological Properties (HIV-1) Isolates."; Virology 174:103-116(1990).
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J. Virol. 73:976-984(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-MCK1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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01-NOV-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00516; GP120; 1. Pfam; PF00517; GP41; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Steenbeke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cayabyab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Iwatani Y.;
                                                                                                 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         638
                           13
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                                                                                                                          YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35; Conserv
                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      M., Karlsson G.B.,
e_T., Halloran M., I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FROM N.A.
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                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          viruses;
                                                                                                                                                                                                                                                                                             Glycoprotein; Polyprotein; 97287 MW; 238042A234C56685
                                                                                                                                                                                                                    96.9%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96.98;
97.28;
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es; Retroviridae;
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01,
19,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last
Last
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Pred. No. 1.
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Pred. No. 1
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                                                                                                                                                                                              Mismatches
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..2e-14;
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090178;
01-NOV-1998
01-NOV-1998
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AIDS; Coa
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01-NOV-1996
01-DEC-2001
                    InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprote
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Q74090;
                                                                                                                                         immunotoxin-resistant variant T cell line."; Submitted (JUN-1998) to the EMBL/GenBank/DDBJ EMBL; AF070521; AAC28452.1;
                                                                                                                                                                                                                                           Fang
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE=95074930;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENV.
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"Spectrum of Biological Properties
(HIV-1) Isolates.";
                                                                                                                                                                                         "Spontaneous activation of human immunodeficiency virus immunotoxin-resistant variant T cell line.";
                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                      J. Virol.
                                                                                                                                                                                                                                                                                                                                                                     selected
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AIDS;
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INTERPRO; IPRO00328; Env_GP41.
InterPro; IPRO00777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=PM213;
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NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                                                                            infected
                                                                                                                                                                                                                                                                                                                                                                                                                Fang H., Pincus
                                                                                                                                                                                                                                                                                                                                                                                         "Unique insertion sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Virology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=90101366;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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nes 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Coat protein; Glycoprotein; NCE 856 AA; 97396 MW; FE
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T cel
                                                                                                                                                                                                                                                                      FROM N.A
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                                                                                                                                                                                                                                                                                                                   69:75-81(1995).
  protein;
854 AA;
                                                                                                                                                                                                                                                                                                                                          cells.";
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3 (TrEMBLrel.
1 (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                                     S.H.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         PubMed=7983770;
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  Glycoprotein;
96885 MW; 08
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19,
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19,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of Human
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.2e-14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00516; GP120; Pfam; PF00517; GP41;
                                                                                                                                                                                                                                               Buckler C.E., Buckler Submitted (JUL-1989)
                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                           molecular clone.";
J. Virol. 59:284-291(1986).
                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE-86281827;
                                                                                                                                                                                                                                                                                                                                                                                          Viruses; Retroid viruses;
NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Envelope polyprotein.
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InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                           InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                                                                                                  EMBL; M19921; AAA44992.1;
                                                                                                                                  gp41 resultis in loss of killing
                                                                                                                                  Mutation of human immunodeficiency pp41 resultis in loss of killing by
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                                          pF00516; GP120;
pF00517; GP41; 1
Coat protein; Gl
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. Hum. Retroviruses 10:1143-1155(1994).
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man H.E., Koenig
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                                Glycoprotein; Polyprotein; Transme 97124 MW; ABA0AlBF36D5595A CRC64;
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092877;
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CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENV
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                                                                                                                                                                                                                                                                                                                                                retrovirus in human and molecular clone.";
                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=NL4-3;
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                                    Simian-Human immunodeficiency virus. Viruses; Retroid viruses; Retroviridae;
                                                       ENV.
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SEQUENCE FROM N.A. MEDLINE=99098984;
                           NCBI_TaxID=57667;
                                                                 Envelope
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                                                                                                                                             SEQUENCE
                                                                                                                                                                                 AIDS;
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InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                        Mulder K.E ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
NON_TER 752 752
SEQUENCE 752 AA; 84894 MW; 8B30AE894013B45A CRC64;
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn Shaw G., Kong L., Weiss S., Watters D., Gallo R., Blattner W "Viral variability and serum antibody response in a laborat infected with HIV type 1 (HTLV type IIIB).;
ALDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                    Submitted (JUL-1994) to the EMBL/GenBank/DDBJ databases EMBL; Ul2035; AAA76670.1; \cdot.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Viruses; Retroid viruses;
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01-DEC-2001
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InterPro; IPR000777; GP120.
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                                                                                                                                                              Coat protein; Glycoprotein; Polyprotein; Transmembrane ER 752 752
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                                                                                                                                             752 AA;
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(TIEMBLIEL 01, Last sequence update)
(TIEMBLIEL 19, Last annotation update)
                                                                      Conservative
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                                                                                                                                             84780 MW;
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97.28;
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No. 1e-14;
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Q89797;
01-NOV-1996
01-NOV-1996
01-OCT-2001
SEQUENCE FROM N.A.
STRAIN-LW90-2;
MEDLINE=95127297; PubMed=7826699;
MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Reitz M., Hall L., Weiss S., Waters D., Gallo R., Blattner W.;
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker
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Q78243;
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Pfam; PF00517; GP41; 1
AIDS; Coat protein; Gl
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Viruses; Retroid viruses; Retroviridae;
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Verani P., Rossi G.B.;
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Viruses; Retroid viruses; Retroviridae; Lentivirus
NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Titti F., Federico M., Butto S., Orecchia A., Borsetti A., Saggio I., Verani P., Rossi G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Biological and molecular characterization of producer and producer clones from HUT-78 infected with a patient HIV iso AIDS Res. Hum. Retroviruses 5:385-396(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Federico M., Titti F., Butto S., Or Macchi B., Mangiano N., Verani P.,
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01-NOV-1996
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Reitz M., Hall L., Robert-Guroff M., Lautenberger

Shaw G., Kong L., Weiss S., Weiss D., Gallo R., E

"Viral variability and serum antibody response in

infected with HIV type 1 (HTLV type IIIB).";

AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Viruses; Retroid viruses; Retroviridae;
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                                                                                                                              MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger Reitz M., Hall L., Weiss S., Waters D., Gallo R., E Shaw G., Kong L., Weiss S., Waters D., Gallo R., E "Viral variability and serum antibody response in infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
Submitted (JUL-1994) to EMBL; U12032; AAA76668.1
                                                                                                                                                                                                                                                                                                                                   Viruses; Retroid viruses; NCBI_TaxID=11676;
                                          Mulder K.E.;
                                                                 STRAIN=LW881;
                                                                                         SEQUENCE FROM
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InterPro; IPRUVV.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein;
AIDS; Coat protein; G4224 MW; 56BEDF186C67694
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01-NOV-1996 (TrEMBLrel.
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Envelope glycoprotein (
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J.,
Rohev G., Kong L., Weiss S., Waters D., Gallo R., Blatt
"Viral variability and serum antibody response in a la
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Viruses; Retroid viruses; Retroviridae;
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InterPro; IPR000777; GP120.
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EMBL; U12030; AAA76666.1;
          Human immunodeficiency virus type 1 Viruses; Retroid viruses; Retroviri
                                  ENV
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Viruses; Retroid viruses; NCBI_TaxID=11676;
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1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF
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# ALIGNMENTS

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1 YTSLIHRLIBESONOOEKNEOELLELDKWASLWNWF 36 	Query Match 96.9%; Score 190; DB 15; Length 645; Best Local Similarity 97.2%; Pred. No. 8.8e-15; Matches 35; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	Transmembrane. 1 1 NON_TER 1 1 SEQUENCE 645 AA; 72485 MW; B076514BE93362EC CRC64;	Pfam; PF00517; GP41; 1.  Pfam; PF00517; GP41; 1.  AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;	m m	Proc. Natl. Acad. Sci. U.S.A. 98:4587-4592(2001). EMBL; AF321563; AAK18810.1;	nvelope glycoprotein sugo ssing.";	White S.W., Doherty P.C., Hurwitz J.L.; "Localization of CD4+ T cell epitope hotspots to exposed strands of	MEDLINE=21192672; PubMed=11287644; Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M.,	SEQUENCE FROM N.A.	NCBI_TaxID=11676; [1]	Viruses; Retroid viruses; Retroviridae; Lentivirus.	ENV.	Truncated envelope glycoprotein (Fragment).	(Tremburel 17,	01-JUN-2001 (TrEMBLrel. 17, Created)	JLT 1 A6 Q993A6 PRELIMINARY; PRT; 645 AA.

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glycoprotein (GP120);
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; Transmembrane glycoprotein
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es; Retroviridae; Lentivirus.
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                                "Molecular characterization of human immunodeficiency virus from Zaire: nucleotide sequence analysis identifies conserved and varidomains in the envelope gene.";
Gene 52:71-82(1987).
                                                                            SEQUENCE FROM N.A.
MEDLINE=87248097; PubMed=3036660;
Srinivasan A., Anand R., York D., Rangan Schochetman G., Curran J., Kalyanaraman
                                                                                                                          Human immunodeficiency virus type 1 (Zaire Viruses; Retroid viruses; Retroviridae; Len NCBI_TaxID=11708;
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                     Sanchez-Pescador R.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=90347835;
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es; Retroviridae; Lentivirus.
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: glycoprotein (GP120); Transmembrane glycoproteir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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InterPro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
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EMBL; X01762; CAA25903.1;
PIR; A03974; VCLJVL.
HIV; K02083; ENV$PV22.
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Retroid viruses; Retroviridae; Lentivirus
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SEQUENCE FROM N.A.
MEDLINE-90317906; PubMed=2370688;
MEDKINE-90317906; Cheng-Mayer C., Ba
"Human immunodeficiency virus type
                                                                            Human immunodeficiency Viruses; Retroid viruse NCBI_TaxID=11690;
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991 (Rel. 17, Last sequence update)
991 (Rel. 40, Last annotation update)
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polyprotein GP160 precursor (Contains:
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InterPro; IPR000777; GP120.
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J. Virol. 64:4016-4020(1990).
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01-JUL-1993 (Rel. 26, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
glycoprotein (GP120); Transmembrane cluckers
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MEDLIND=86218077; PubMed=2423250;

Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,

Parks E.S., Parks W.P., Josephs S.F., Gallo R.C.,

"Identification and characterization of conserved regions in the envelope gene of HTLV-III/LAV, the
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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                                      EMBL; M17450; -; NOT_ANNOTATED_CDS.
PIR; B28922; VCLJSC.
HIV; M17450; ENVSSC.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Polyprotein; Glychills; GP120; 1.
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Gurgo C., Guo H.-G., Franchini G., Aldovini A., Coll Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. J.
"Envelope sequences of two new United States HIV-1 Virology 164:531-536(1988).
"ENVELOPE SEQUENCES OF TWO INVESTIGATION OF TAKEN FROM AIR STATEMENTA.
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01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
        Signal
SIGNAL
                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EW the European Bioinformatics Institute. There are no restruce by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-sorsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type 1 Viruses; Retroid viruses; Retrovirio NCBI_TaxID-11702;
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7 01-FEB-1991 (Rel. 17, Created)

101-FEB-1991 (Rel. 17, Last sequence update)

15-JUL-1999 (Rel. 38, Last annotation update)

DE Envelope polyprotein GP160 precursor [Contains: Extended to the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the proce
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Pfam; PF00517; GP41; 1
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MEDLINE=90317877; PubMed=1695254;
Stevenson M., Haggerty S., Lamoni
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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Shaw G.M., Kong L.I., Weiss S.H., Waters D., Ga.
"Viral variability and serum antibody response infected with HIV type 1 (HTLV type IIIB).",
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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                                           ween the Swiss Institute of Bioinformatics and the Employment is European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way lifted and this statement is not removed. Usage by and for commercial ities requires a license agreement (See http://www.isb-sib.ch/announce/send an email to license@isb-sib.ch).
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RESULT 6
ENV_HV1BR
ID ENV_HV1BR
STANDARD; PRT; 861 AA.
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DT 21-TUL-1986 (Rel. 01, Created)
DT 21-TUL-1986 (Rel. 01, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE Envelope polyprotein GP160 precursor (Contains: Ext
Envelope polyprotein (GP120); Transmembrane glycoprotein (G
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OS Human immunodeficiency virus type 1 (BRU isolate) (
Viruses; Retroid viruses; Retroviridae; Lentivirus.
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15-JUL-1999 (Rel. 38, I
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Envelope polyprotein GP
glycoprotein (GP120); TENV.
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nterPro; IPR000777; GP120
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Polyprotei
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EMBL; AF033819; AAC82596.1;
HIV; K03455; ENV$HXB2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               une European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a light content.
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Submitted (APR-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AIDS
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MEDLINE-87299196; PubMed-3040055;
Ratner L., Fisher A., Jagodzinski
Gallo R.C., Wong-Staal F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        between
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1 (HXB2 isolate) (HIV-1).
Viruses; Retroid viruses; Retroviridae; Lentivirus.
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    AAB50262.1; -.
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      Polyprotein;
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GP160 precursor [Contains: Exterior membrane
; Transmembrane glycoprotein (GP41)].
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RESULT 4
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) ENV_HVH3
C P04624;
T 13-AUG-1987 (Rel. 05, Created)
T 01-FEB-1996 (Rel. 33, Last sequence update)
DT 15-JUL-1999 (Rel. 33, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Extended to the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contai
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Crowl R., Ganguly K., Gordon M., Conroy R.,
Shaw G.M., Wong-Staal F., Reddy E.P.;
"HTLV-III env gene products synthesized in
antibodies present in the sera of AIDS pati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type 1 (HXB3 isolate) Viruses; Retroid viruses; Retroviridae; Lentivirus NCBI_TaxID=11707;
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Eglycoprotein (GP120); Transmembrane glycoprotein
                                                potential glycosylation sites of the type 1 immunodeficiency virus envelope glycoprotein chinese hamater vorus cells.":
                                                                                         MEDLINE=90285159; PubMed=2355006;
Leonard C.K., Spellman M.W., Ridd
Gregory T.J.;
                                                                                                                           DISULFIDE BONDS,
                                                                                                                                               Lautenberger J.A., Papas
Wong-Staal F.;
"Complete nucleotide sequ
Nature 313:277-284(1985).
                                                                                                                                                                            Ratner L., Haseltine W., Patarca R., Livak K.J., Starcich Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A., Baumeister K., Ivanoff L., Petteway S.R. Jr., Pearson M.L. Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.T., Gal
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                                                                 "Assignment of intrachain disulfide bonds and characterization potential glycosylation sites of the type 1 recombinant human
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                                  Biol.
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SWISS-PROT entry is copyright. It is produced entry the Swiss Institute of Bioinformatics and
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35; Conservative
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Chem. 265:10373-10382(1990)
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HIV; M15654; ENV$BH102.
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C;Date: 15-Jul-1995 #sequence_revision 01-Sep-1995 #text_change
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A; Cross-references: EMBL:M22639;
C; Superfamily: type E retrovirus
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R; Theodore, T.; Buckler-White,
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C;Date: 30-Sep-1987 #sequence_revision
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A:Reference number: A26192; MUID:87248097; PMID:3036660
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A;Residues: 1-855 <SRI>
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Gene 52, 71-82, 19
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                                                                                                                                                Indels
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                                                                                                                                                                                                                                                                                                           immunodeficiency;
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                                                                                                                                                                                                                                                                                                                                                                                  PID:g329403
                                                                                                                                                                                                                     ,386,392,398,40
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Search completed: May 16, Job time: 13.1446 secs

2003, 11:25:11

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env polyprotein m - nument amm.

R;Alternate names: coat polyprotein
N;Contains: amino end of coat protein gp41; carboxyl end of coat protein gp120
C;Species: human immunodeficiency virus type 1, HIV-1
A;Note: host Homo sapiens (man)
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
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C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
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C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
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C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Keywords: AIDS; capsid protein: coat protein; glycoprotein: immunodeficiency; polyp E;1-253/Product: coat protein gp120 (fragment) #status predicted <GP1> E;254-445/Product: coat protein gp41 (fragment) #status predicted <GP2> E;426-445/Domain: transmembrane #status predicted <TMN> E;9,23,42,48,78,85,101,107,131,137,143,147,152,155,190,205,353,358,367,379/Binding si
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          submitted to the EMBL Data Library, July 1996
A; Reference number: 216673
A; Accession: T09448
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-847 < PANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  envelope glycoprotein - human immunodeficiency virus type 1 (strain JRFL)
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QУ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Gene: env
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:M77228; NID:g328627; PIDN:AAB03790.1; A;Note: this virus was isolated from the mother
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-445 <BUR>
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A;Title: Evolution of human immunodeficiency virus type 1 nucleotide sequence diversi A;Reference number: A41621; MUID:92107924; PMID:1763038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession: R; Pang, S.; V
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                                                                      Qy
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C; Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references:
C;Genetics:
В
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Best Local
                                                                                                                                                              Matches
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    629
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                                                                                                                                                                                           Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S.; Vinters, H.V.;
                                                                          1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF
    YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                          l Similarity
33; Conserv
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                                                                                                                                                                                                                                                                                                                    type E retrovirus
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                                                                                                                                                              Conservative
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88.9%;
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91.7%;
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Library, July 1996
                                                                                                                                                                                                   Score 177; I
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Pred. No. 1.4e-13;
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                                                                                                                                                                                                       DB 2;
        664
                                                                                   36
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envelope protein gp120/gp41 - human immunodeficiency virus type 1
C:Species: human immunodeficiency virus type 1, HIV-1
A;Variety: isolate 28
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
C:Accession: S21998; S70425
R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W. submitted to the EMBL Data Library, July 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C.Superfamily: type E retrovirus env polyprotein (C:Keywords: capsid protein; coat protein; glycoprotein; polyprotein; transmembrane F:1-29/Domain: stignal sequence #status predicted <SIG>F:30-861/Product: env polyprotein #status predicted <EPP>F:87,129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,340,356,362,38
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Virology
A;Title:
A; Accession: S2199
A; Molecule type: I
A; Residues: 1-358
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A;Title: Distinct populations of human immunodeficiency virus A;Reference number: $70417; MUID:92144209; PMID:1736940
A:Reference number: $70417; MUID:92144209; PMID:1736940
                                                                         A; Description: Distinct
A; Reference number: S219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-140, 'X', 142-312, 'X', 314-357 <STE2>
A; Residues: 1-140, 'X', 142-312, 'X', 314-357 <STE2>
Iperfamily: type E retrovirus env polyprotein
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C;Accession: S21994; S70421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 envelope protein gpl20/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 27B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number: A28922;
A; Accession: B28922
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A; Residues: 1-357 <STE1>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Gene: env
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A; Residues: 1-861 <GUR>
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                                                                                                                                                                                                                                                                                                                                                                                                             139
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164, 531-536, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                       YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Envelope sequences
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                                                                                                                                                                                                                                                                                                                                                                                                             YTTLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 174
                                                    S21998
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                                                                           S21990
                                                                                                populations of HIV-1 in blood and cerebrospinal fluid
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91.7%;
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MUID:88219542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 181; DB 2;
Pred. No. 3.6e-14;
2; Mismatches 1
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Pred. No. 4.3e-14;
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A; Molecule type: DNA
A; Residues: 1-357 <573>
A; Cross-references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Muesing, M.A.; Smith, D.H.; Cabradilla, C.D.; Benton, Nature 313, 450-458, 1985
A;Title: Nucleic acid structure and expression of the h A;Reference number: A93355; MUID:85111157; PMID:2982104
A;Accession: A03974
                            A; Experimental source:
                                                                                                                              A; Status: preliminary
                                                                                                                                                          A; Reference number: $70417; A; Accession: $70422
                                                                                                                                                                                      A; Title: Distinct populations of human immunodeficiency A; Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                           R; Steuler, H.;
AIDS Res. Hum.
                                                                                                                                                                                                                                                                                                 C; Accession:
                                                                                                                                                                                                                                                                                                                    envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 27L) C;Species: human immunodeficiency virus type 1, HTV-1 C;Datce: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F;512-856/Product: transmembrane glycoprotein #status predicted <TMM>F;88,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,F;88,136,641,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-511/Product: exterior membrane glycoprotein #status predicted <EXT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; polyp C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Gene: env
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Cross-references: GB: K02083; NID: g555008; PIDN: AAB59873.1;
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A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
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A; Cross-references: EMBL:X61359; NID:g60182;
C; Superfamily: type E retrovirus env polyprot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992 A;Title: Distinct populations of human immunodeficiency virus A;Reference number: $70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Accession:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Species: human immunodeficiency virus type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         env polyprotein precursor – human immunodeficiency virus type 1 (isolate LV) N; Alternate names: coat polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-222, 'X', 224-358
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Best Local '
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Best Local
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imental source: patient 27L
submitted to the EMBL Data
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: 1-856 <MUE>
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33; Conserv
                                                                                                                                                                                                                                                                                                 S70422; S21996
                                                                                                                                                                                                                                         Storch-Hagenlocher, B.; Wildemann, Retroviruses 8, 53-59, 1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D.H.; Cabradilla, C.D.; Benton, C.V.; Lasky, L.A.; Capon,
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94.3%;
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91.7%;
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Pred. No.
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A; Title: Nucleotide sequence of the A; Reference number: A90866; MUID:850 A; Accession: A03975
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Nature 313, 277-284, 1985
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C; Date: 17-May-1
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nv polyprotein P
N; Alternate names:
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                                                      C41621
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F;31-516/Product: exterior membrane glycoprotein #status predicted <EXT>
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A;Cross-references: GB:
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                                                                                    RESULT
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-511/Product: exterior membrane glycoprotein #status predicted <EXT>
-2-856/Product: transmembrane glycoprotein #status predicted <TMM>
-2-856/Product: transmemb
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Best Local
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sidues: 1-861 <WAI>
oss-references: GB:K02013; NID:g326417; PIDN:AAB59751.1; PID:g326424
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J.A.; Papas, T.S.; Ghrayeb,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
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                                                                                                                                                                        YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                  YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF
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35; Conserv
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ilarity 97.2%;
Conservative
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                              human
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polyprotein
                                                                                                                                                                                                                                                                                                                   96.9%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (man
                           immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P.; Danos,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MUID:85099333;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human
                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                Score 190;
Pred. No. 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 190;
Pred. No. 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
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J.; С
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                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         O.; Cole,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Livak, K.J.; Chang, N.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                virus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GB:K02009; GB:K02010; NID:g326383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ne AIDS virus,
PMID:2578615
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                   DB 1;
.2e-15;
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                           type
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                                                                                                                                                                                                                                                                                                                                           Length 861;
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                              <u>, ...</u>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-Jul-1999
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Wong-Staal,
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   A; Note: host Homo sapiens (man) C; Date: 31-Dec-1990 #sequence_r C; Accession: B28922
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A; Note: this virus was isolated from the mother's sexual partner
C; Genetics:
A; Gene: env
C; Superfamily: type E retrovirus env polyprotein
C; Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency;
F; 1-251/Product: coat protein gp120 (fragment) #status predicted <GP1>
F; 252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>
F; 424-443/Domain: transmembrane #status predicted <TMN>
F; 9, 23, 36, 48, 78, 101, 107, 131, 137, 143, 147, 153, 188, 200, 203, 351, 356, 365, 377/Binding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Reference number: A41621; MUID:92107924; PMID:1763038 A;Accession: C41621
N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                F;30-501/Product: coat protein gp120 #status predicted <GP1>F;502-847/Product: coat protein gp41 #status predicted <GP2>F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338
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A; Residues: 1-856 <STA>
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Cell 45, 637-648, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N;Contains: coat protein gp120; coat protein gp41
C;Species: human immunodeficiency virus type 1, HIV
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-1988
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                                                                                  env polyprotein precursor -
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Best Local
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                                                                                                                                                                                                                                                                                     YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                               1-443 <BUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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otein; glycoprotein; polyprot
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Pred. No. 3.
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Pred. No. 1.5e-14;
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PMID:2423250
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.2e-14;
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#sequence\_revision

31-Dec-1990

#text\_change

16-Feb-1997

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Minimum DB
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          on:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
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        protein search, using sw model
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Match
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196
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          \begin{array}{c} 996 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\ 966 \\
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          DB.
        VCLJYLV
C41621
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VCLJSC
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A41621
T09448
S13289
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RESULT VCLJH3

Qy 1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36 .	Query Match 96.9%; Score 190; DB 2; Length 854; Best Local Similarity 97.2%; Pred. No. 8.1e-15; Matches 35; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	RESULT 2  \$13288 env protein - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997 C;Accession: \$13288 R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, A.; Idler, K.; Zack, Nature 348, 69-73, 1990 A;Title: HIV-1 tropism for mononuclear phagocytes can be determined by regions of gpl A;Reference number: \$13288; MUID:91043044; PMID:2172833 A;Accession: \$13288 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-854 <obr> C;Superfamily: type E retrovirus env polyprotein</obr>	QY 1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36 THIFF HILLIH	Query Match 96.9%; Score 190; DB 2; Length 851; Best Local Similarity 97.2%; Pred. No. 8.1e-15; Matches 35; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	C;Date: 19-Mar-199/ #sequence_revision 19-Mar-199/ #text_change 26-Aug-1999 C;Accession: S33985 R;Carlini, F. submitted to the EMBL Data Library, November 1991 A;Reference number: S33979 A;Accession: S33985 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-851 <car> A;Cross-references: EMBL:Z11530; NID:g60192; PIDN:CAA77628.1; PID:g60199 C;Superfamily: type E retrovirus env polyprotein</car>	ALIGNMENTS  nan immunodeficiency virus type 1 nnodeficiency virus type 1, HIV-1 tectures type 1, HIV-1	30 166 84.7 859 2 T01672 envelope polyprote 31 165 84.2 454 2 B41621 env polyprotein D 32 165 84.2 852 1 VCLJBR env polyprotein - 4 165 84.2 852 1 VCLJBR env polyprotein - 5 165 84.2 852 1 VCLJBR env polyprotein - 6 165 84.2 852 1 VCLJBR envelope polyprotein - 6 17 18 18 18 18 18 18 18 18 18 18 18 18 18

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""tches 35; Conserv:
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Search completed: May 16, 2003, .11:12:06
Job time: 33.4578 secs
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                                                                                                                                                                                                                                                                 The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the polypeptide that they are linked to. The core polypeptides enhance the polypeptide that they are linked into a living system and that can polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interferon, colony stimulating factor, hormone or interleukin, interferon, colony stimulating factor, hormone or inhibiting viral infection and can used in anti-viral and anti-busquences treatments. Sequences ARV88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences and form bybrid columns that can be used in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unidentified
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                                                                      1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                        hybrid polypeptides.
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97.2%;
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Pred. No. 1.8e-16;
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                                                                                                           function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interfeukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAV88651-v90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                       The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retrovital envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can
                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 22; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                         A new hybrid polypeptide with enhanced comprises enhancer sequence \mbox{\ \ }
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35; Conserv
                  Similarity
                                                                                                hybrid polypeptides.
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                                                                   36 AA;
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                  96.9%;
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Score 190; DB 21;
Pred. No. 1.8e-16;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                        pharmacokinetic properties
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                                Length 36;
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1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36

RESULT 15 AAY89136

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AAY89136 standard; peptide;

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RESULT 14
AAY89135
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                                                                                                                                                                                             polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacollygically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interferon, colony stimulating factor, hormone or anglogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences ANY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends and form buther of the comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core
                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A new hybrid polypeptide with enhanced comprises enhancer sequence -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                     and form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 30; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-136792/12
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                       1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                    hybrid polypeptides.
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                                                                            Conservative
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                                                                                             96.9%;
97.2%;
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                                                                           Score 190; DB 21;
Pred. No. 1.8e-16;
0; Mismatches 1
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       AAB14533
of HIV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or minics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or minic the coiled coil solution structure of the N-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), or can correspond or minic the C-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), or the gp41 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three gp41 proteins. The peptides can be administered either singly or as a combination (particularly a combination of N-helical and C-helical domain peptides), and can be combination of N-helical and C-helical domain peptides can be alternately linked together to form a peptide which minics the core 6-helix bundle. Administration of the peptide which minics the core 6-helix bundle. Administration of the peptides gaainst gp41 are well conserved, such antibodies may be effective against a broad range of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Raising neutralizing antibody response to human immunodeficiency virus, comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wild CT,
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07-JAN-2000; 2000US-0480336
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     envelope glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gp41 transmembrane-proximal amphipathic alpha-helical segment;
core 6-helix bundle; viral entry inhibition; immunogenic;
antibody; humoral response; broad spectrum vaccine; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1; gp41 C-helical domain;
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                                                                                                                                                                                                                                                                                                                         Sequences AAB14532-B14534 and AAB14569-B14602 represent specifically claimed peptides derived from the C-helical domain of the gp41 envelope glycoprotein from a variety of HIV-1 isolates. The invention relates to raising a neutralising antibody response to a broad spectrum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (WILD/) WILD C T. (WEIS/) WEISS C D
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                                                                                                                                                                                                                                                                                                                                                                                                                    Page 12;
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                                                                                                                                                                                                                                                                                                                                                                                                                   97pp; English.
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RESULT 12
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Best Local
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                                                                                                                derived from various retroviral envelope (gp41) protein sequences, the especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Retrovirus; hybrid polypeptide; enhancer; g941; envelope protein HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon; colony stimulating factor; hormone; angiogenic factor.
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           interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences ANY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
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                                                                                                                                                                                                                                                                                                                      Disclosure; Page 21; 124pp; English
                                                                                                                                                                                                                                                                                                                                                          comprises enhancer
                                                                                                                                                                                                                                                                                                                                                                        A new hybrid polypeptide with enhanced
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                                                                                                                                                                                                                                                                The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are
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ilarity 97.28;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                          pharmacokinetic properties
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factor; cytokine;
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                                                                                                                                                                                                                                                                                                                  AAB52688
                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
WPI;
                    Wang
                                                                   05-MAY-1999;
                                                                                         05-MAY-2000;
                                                                                                              09-NOV-2000
                                                                                                                                       WO200066622-A1
                                                                                                                                                            Human immunodeficiency
                                                                                                                                                                                  formyl peptide receptor family; FPR; inflammator: ----chemoattractant.
                                                                                                                                                                                                                                 T20/DP178 peptide fragment #66.
                                                                                                                                                                                                                                                        23-FEB-2001
                                                                                                                                                                                                                                                                               AAB52688
                                                                                                                                                                                                                                                                                                    AAB52688 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 12; Page 24; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (USSH)
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                     , M
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                                            US DEPT HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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                    Oppenheim
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                                                                                         2000WO-US12371
                                                                                                                                                                                                                                                       (first entry)
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                                                                  99US-0132686.
                                                                                                                                                                                                                                                                                                      Peptide;
                     JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JJ,
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97.2%;
                                           & HUMAN
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                    s,
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Pred. No. 1.8e-16;
""" matches 1;
                                            SERVICES
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                   Gong W,
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                                                                                                                                                                                             inflammatory response up-regulation;
                      Gao
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J,
                    Murphy PM;
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AAB52818
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Best Local
The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                                                  Wang
                                                                                                                                                        Claim 14; Page 40; 148pp;
                                                                                                                                                                                                   Administration of peptide agents with a sequence corresponding partial length T20/DP178 or T21/DP107 formyl peptide receptor
                                                                                                                                                                                                                                                     WPI; 2000-656493/63.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein 9p41. T20/DP178 is located in the carboxyl terminus of the 9p41 ectodomain. 9p41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178
                                                                                                                                                                                        antagonist
                                                                                                                                                                                                                                                                                                               (USSH ) US DEPT
                                                                                                                                                                                                                                                                                                                                                                             05-MAY-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antiinflammatory; formyl peptide red
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T20/DP178 peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 12; Page 25; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
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                                                                                                                                                                                                                                                                                   JM,
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35; Conser
                                                                                                                                                                                                                                                                                  Oppenheim JJ.,
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                                                                                                                                                                                                                                                                                                                                                99US-0132686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ry: T20/DP178; gp41 ectodomain; HIV-1 fusion;
receptor family; FPR; inflammatory response up-regulation;
                                                                                                                                                                                                                                                                                                                  HEALTH & HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fragment #97.
                                                                                                                                                                                        to modulate
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97.2%;
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Pred. No. 1.8e-16;
                                                                                                                                                                                          inflammation
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                                                                                                                                                                                                                                                                                  Murphy
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RESULT 6
AAY31955
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                                                                                                                                                  The present sequence represents an N- and C-terminal modified peptide, designated T-20 (or DP-178), corresponding to amino acids 638-673 of the transmembrane protein gp41 of HTV-1 LAI isolate.

The invention relates to methods for the synthesis of peptides, in particular T-20 and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T20-like peptide, followed by deprotection of the side chains to yield the final T-20 or T-20-like peptide. The invention act as intermediates in the synthesis of peptides of interest (e.g. T-20), and to particular groups of peptide fragments which act as intermediates in the synthesis of the peptide of interest. The method allows for the large scale, economical production of high
                                                                     Query Match
Best Local S
                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis.
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                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 102; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9948513-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic peptide T-20 (DP-178).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-DEC-1999
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                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                 T-20 like peptides
                                                                                                                                                                                                                                                                                                                                                                                                                             Methods of peptide synthesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-591038/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kang M, Bray B,
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01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-MAR-1999;
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                                                                                                                                           purity
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                1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                            peptides.
                                                                       Similarity
                                                                                                                36
                                                         Conservative
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                                                                                                                AA,
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98US-0071877
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                                                                     96.9%;
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                                                                     Score 190;
Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                              particularly used to produce T-20 or
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                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Merutka
                                                                     DB 20;
L.8e-16;
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                                                                                  Length 36
                                                        0;
                                                      Gaps
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RESULT 7 AAY31974

T20/DP178 peptide fragment #33.

AAB52655; 23-FEB-2001

(first entry)

Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation;

chemoattractant

AAB52655

AAB52655 standard;

Peptide;

36

RESULT 8

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XXX XXX DXX AXX
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                                                                                                                                                                                                                                                                               The present sequence represents a peptide, designated T-20 (or DP-178), that corresponds to amino acids 638-673 of the transmembrane protein gp41 of HIV-1 LAI isolate. The invention relates to methods for the synthesis of peptides, in particular C-and N-terminal modified T-20 (see ANX1955) and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates (see ANX1955) and T-20 or a T-20-like peptide on a solid support, coupling the protected T-20 or 1 and N-1 an
                                                                                                          Matches
                                                                                                                                Query Match
Best Local :
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01-MAY-1998;
                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Methods of peptide synthesis, particularly used to produce T-20 like peptides \, -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1 LAI gp41 T-20 peptide
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1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                          35;
                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bray B,
                                                                                                                                                                                                                                                              production of high purity peptides.
                                                                                                                                                                                                             36 AA;
                                                                                                          Conservative
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98US-0071877
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                                                                                                                                96.9%;
97.2%;
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                                                                                                                                Score 190;
Pred. No. 1
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                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                      AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HTV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain
                                                                                                            Sequence
                                                                                                                                                               available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for of synthetic antibody clones from phage display libraries, or
                                                                                                                                                                                                                 constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptides AAY22805-Y22917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Braisted A,
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06-NOV-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY22912 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC
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                                                                                                                                                forms of
 1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                       Similarity
35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Specifically, AAY22810-Y22910 are derived from gp41 proteins in HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and
                                                                                                                                              "floppy"
                                                                                                            36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Judice JK,
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96US-0743698
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           233-234; 279pp; English.
                                                                                                                                                peptides or proteins.
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                                                        96.9%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             are derived from Human
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                                     Score 190; DE
Pred. No. 1.8e
0; Mismatches
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                                                      DB 19;
L.8e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunodeficiency virus
                                                                       Length 36;
                                         Indels
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                                                                                                                                                                                 for isolation
                                                                                                                                                                or as stable
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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1 YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF 36

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                  Query Match
Best Local
                                                                                                                       available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for of synthetic antibody clones from phage display libraries, or
                                                                                                                                                                                                                                                 AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain
                                                                                                                                                                             constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily
                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus (HTV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HTV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention
                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 143-144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of infection
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06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
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                                                                                                      of
 1 Similarity
35; Conser
                                                                                                  "floppy" peptides or proteins.
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96US-0743698
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                 96.98;
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Pred. No. 1.8
); Mismatches
                 Score 190; DB 19; Pred. No. 1.8e-16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein-protein interactions, and possess anti-viral activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission to uninfected cells, and can also be used as type and/or subtype specific
                                                                                                                                                                                                                                                                                                                      (TRIM-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnostic
                   Disclosure; Fig 1; 471pp; English
                                                                      Inhibiting viral transmission, e.g. HIV or isolated peptide recognised by an ALLMOTI5, sequence search motif
                                                                                                                                                                                 WPI; 1996-309517/31
                                                                                                                                                                                                                                                                                                                                                                                                     06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-JUN-1996.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antifusogenic activity; antiviral capability; coiled-coil ALLMOTI5; 107x178x4; PLZIP search motif; viral transmissic influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DP178 corresponds to residues 638-673 of HIV-1(LAI) gp41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR98398;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1995-036105/05
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Petteway SR,
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35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tools.
                                                                                                                                                                                                                                 Bolognesi DP,
Petteway SR,
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, Wild CT;
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94US-0360107.
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97.28;
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                                                                                                RSV, to a cell - using an , 107x178x4 or PLZIP
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Вþ 8

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Matches

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YTSLIHRLIEESQNQQEKNEQELLELDKWASLWNWF

36

Indels

0,

Gaps

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36

YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

Local Similarity les 35; Conserv

Conservative

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RESULT 3
AAW17011
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Matches
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                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequences given in AAR98398-408 represent peptides which exhibit antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide structures. These peptides are recognised by the ALLMOTIS, 107x178x4 and PLZIP search motifs. These peptides may be used to inhibit the transmission of a virus, pref. HIV, influenza virus, or
                                                                                                                                                                                                                                                                                                                       Compsns. contg. DP-178 or DP-107 in combination with other therapeutic agent - useful for treatment of HIV infection, inhibiting replication or transmission of HIV.
                                                                             Sequence
                                                                                                               also be used in vaccines for protecting against
                                                                                                                               reverse transcriptase, viral protease, cytokine, glycosylation or viral mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting viral replication or inhibiting transmission. They may
                                                                                                                                                                                      AAWI7011 represents a peptide designated DP-178, a peptide derived from HIV type 1 glycoprotein 41 (gp41) transmembrane protein. The peptide corresponds to residues 638-673 of gp41. DP-178 and its derivatives are used in combination with a therapeutic agent, e.g.
                                                                                                                                                                                                                                                                                        Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV; SIV: human; simian immunodeficiency virus; transmembrane; antiviral; DP-178; DP-107; vaccir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-JUN-1997
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                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1997-099886/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9640191-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1 LAI isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             replication; transmission.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HIV-1 derived peptide useful for treatment of HIV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW17011 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hepatitis B virus, to a cell.
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                                                                                                                                                                                                                                                                                      Figure 1; 84pp; English.
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Score 190; DB Pred. No. 1.8e 0; Mismatches
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                 DB 18;
.8e-16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vaccine;
                                                                                                                 HIV infection
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Result
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                     Score
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Gapop 10.0 , Gapext 0.5
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196
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147.792 Million cell updates/sec
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                       Length
            GenCore version 5.1.4_p5_4578 (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                       DB
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       AAR64364
AAR98398
AAW17011
AAY22912
AAY31955
AAY31974
AAB52655
AAB52688
AAB52688
                                                                                                                                                                                                                                                                                                                                            SUMMARIES
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DP-178 derived fro DP178 corresponds HTV-1 derived pept SEQ ID NO. 108 from SEQ ID NO. 1 from Synthetic peptide HTV-1 LAI gp41 T-2 T20/DP178 peptide T20/DP178 peptide T20/DP178 peptide
                                                                                                                                                                                                                                                                     Description
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ABB01440	7	B013	B013	B011	B01	B011	300E	B006	B006	B006	B006	B004	9004	B00(	000	8	67(	829	707	70	900	899	999	988Y	.68A	89.	968	99	89	.68A	.68A	887	AAY88665	4
gp41 DP178	1 DP178/107-	ral DP178/107-1	ral DP178/107-1	uorescein-label	al DP178/107-1	al DP178/107	al DP178/107-1	al DP178/107-1	1 DP178/10	al DP178/107-1	F1 protein DP	DP178/107-1	l DP178/107-1	1 DP178/107-	in-labelled	-1 gp41 peptid	-1 gp41 pept	IH-I	Η.	vir	þ	ore po	ore po	ore po	ore po	ore po	ore po	ore po	ore po	ore po	ore po	ore po	re polypepti	HIV-1 isolate LAI

#### ALIGNMENTS

AAR64364 ID AAR64364 stand	364 AAR64364 standard; Peptide; 36 AA.
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AAR64364;	
24-AUG-1995 (	(first entry)
DP-178 derived	DP-178 derived from HIV-1 isolate LAI has antiviral activity.
antiviral acti	antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI; human immunodeficiency virus: transmembrane protein: coA1.
alpha helix; l	alpha helix; leucine zipper; DP-185.
Synthetic.	
Modified-site	Location/Qualifiers
	<pre>/note= "optionally has an amino, acetyl,     9-fluorenylmethoxy-carbonyl, hydrophobic or</pre>
Modified-site	38
	<pre>/note= "optionally has a carboxyl, amido, hydrophobic or macromolecular carrier gp. attached"</pre>
WO9428920-A.	
22-DEC-1994.	
07-JUN-1994;	94WO-US05739.
07-JUN-1993;	9305-0073028.

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RESULT 13
US-09-854-816-108
; Sequence 108, Application US/09854816; Patent No. US20020151473A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-854-816-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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MOLECULE TYPE: DP178
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
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MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                      James A. Wells TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                              APPLICANT: Andrew C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFFICATION: <UNKnown>
PRIOR APPLICATION DATA:
                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Genente
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
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                                    CITY: South San F. STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2
COUNTRY: USA
ZIP: 94080
                                                                             STREET: 1 DNA Way
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STATE: California
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                                                                                             ADDRESSEE: Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: Amino Acid
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                                                                                                                                                                                                            J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                                                                                                                                                       J. Kevin Judice
                                                                                                                                                                                                                                                   Robert S. McDowell
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J. Christopher Phelan
Melissa A. Starovasnik
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97.2%;
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                                                                                                                                                                                                                                                                                              Braisted
                                                                                                                                   113
                                                        Francisco
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    Mismatches

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Pred. No. 6.5e-16;
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RESULT 15
US-09-779-451-41
; Sequence 41, Application US/09779451
; Patent No. US20020094521A1
                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: DP178c peptide US-09-848-616-176
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                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 176
                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 35; Conserv
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APPLICANT: Tissot, Alain
APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 176,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Sebbel, Peter
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 108:
                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 37
                                                                                                                              2 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37
                                                                                                                                                                      1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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FILING DATE: *Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: TORCHIA, PhD., Timothy E
REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: CUNKNOWN>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
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TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 36 amino acids
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97.28;
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97.28;
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Pred. No. 6.5e-16;
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; LOCATION: (1)..(36)
; OTHER INFORMATION: T-20
US-09-796-202-10
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CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                           SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 10, Application US/09796202 Patent No. US20020068813A1
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Best Local S
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Best Local :
                                                                  Matches
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                                                                                                                                                                                                                                                                                                                                                APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
ITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
ILE REFERENCE: 2048/61010/JPW/SHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1 TITLE OF INVENTION: Infection FILE REFERENCE: 61009
                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.0
SEQ ID NO 10
LENGTH: 36
                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
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TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                       ORGANISM: unknown
                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97.4%;
Local Similarity 97.2%;
les 35; Conservation
                                                               Local Similarity
nes 35; Conserv
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                              YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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97.28;
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97.28;
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Pred. No. 6.5e-16;
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Pred. No. 6.5e-16;
1; Mismatches 0
                                                                               Score 189; DB 10;
Pred. No. 6.5e-16;
                                                                 Mismatches
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TYPE: PRT
; ORGANISM: Human immunodeficiency virus type
US-09-779-451-5
  Вb
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US-09-779-451-5
                                                                                                                                                        US-09-834-628-1
                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 35; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                             Query Match
Best Local
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                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: PEPTIDES FOR INHIBITION OF HIV INFECTION FILE REFERENCE: 05823.0198-00000 CURRENT APPLICATION NUMBER: US/09/834,628 CURRENT FILING DATE: 2001-04-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
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APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: YU, YEON GYU
APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: KR 00-65664 PRIOR FILING DATE: 2000-11-06
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                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                      LENGTH: 36
TYPE: PRT
                                                                                                                                                                       OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                         OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                           Local Similarity 97.
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                  1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                         97.48; 97.28;
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97.28;
                                                                       Score 189; DB 10;
Pred. No. 6.5e-16;
1; Mismatches 0;
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Pred. No. 6.5e-16;
1; Mismatches 0,
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                                                                                                              Length 36;
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RESULT 12 US-09-854-816-1

Sequence 1, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:

Andrew C.

Braisted

COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk

CITY: South San Francisco STATE: California

COUNTRY:

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/965,056
FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: TOTChla, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECHONE: 650/25-6674
TELECHONE: 650/25-9881
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                                                COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/965,056
                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Andrew C. Braisted
J. Kevin Judice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE DESCRIPTION: SEQ ID NO: 12:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ch 98.5%; l Similarity 97.2%; 35; Conservative
                                      CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                            STREET: 1 DNA Way
CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                     COUNTRY: USA
                                                                                                                                                                                                                                                          STATE: California
                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: WinPatin
                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Christopher Phelan
Melissa A. Starovasník
                                                                                                                                                                                                                                                                                                                                                                                                                James A. Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                     Making Same
: 113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 191; DB 10;
Pred. No. 3.2e-15;
1; Mismatches 0
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; ORGANISM: Homo sapiens US-10-116-797-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-874-475-16
                                                                                                                                                                                                                                                                                                                                                 US-10-116-797-1
                                                                                   SOFTWARE: PatentIn version 3.1 SEQ ID NO 1
                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                  Sequence 1, Application US/10116797 Publication No. US20030044411A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.1
SEQ ID NO 16
LENGTH: 36
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Best Local Similarity
Matches 35; Conserv
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                                                                                                                              CURRENT APPLICATION NUMBER: US/10/116,797
CURRENT FILING DATE: 2002-10-15
NUMBER OF SEQ ID NOS: 5
                                                                                                                                                                                          APPLICANT: Olsen, William C. APPLICANT: Maddon, Paul J. TITLE OF INVENTION. METHODS FOR INHIBITING HIV-1 INFECTION FILE REFERENCE: 64672-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/874,475
CURRENT FILING DATE: 2001-06-04
NUMBER OF SEQ ID NOS: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS FILE REFERENCE: 2793/65166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Petropoulos, Christos J.
APPLICANT: Parkin, Neil T.
APPLICANT: Whitcomb, Jeanette
APPLICANT: Huang, Wei
                                        LENGTH: 36
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
LENGTH: 269 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169 YTSLIYSLIKESQNQQEKNEQELLELDKWASLWNWF 204
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REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: Amino Acid TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 650/952-9881
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97.2%;

    Mismatches

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Pred. No. 6.5e-16;
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Pred. No. 4.1e-15;
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RESULT 3
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                                                                                                                                                                                  US-09-854-816-50
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Best Local Similarity
                                                                                                                  Matches
                                                                                                                                                 Query Match
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TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 50:
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                                                                                                                                Local
                                                                              1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08/965,056
FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: TOICHIA, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: 1005R2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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                                                                                                                  l Similarity
35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: California
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Melissa A. Starovasnik
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Robert S. McDowell
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97.2%;
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97.2%;
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: 113
                                                                                                                Score 191; DB 10;
Pred. No. 2.7e-15;
1; Mismatches 0;
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Pred. No. 2.4e-15;
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RESULT 4
US-09-854-816-12
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APPLICANT: Andrew C
                                                                                                                                                                                                                                               Sequence 12, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 9, Application US/09854816
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INFORMATION FOR SEQ ID NO: 9:
                                                                                                                                                                                                                                                                                                                                                                                       1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 98.5%;
Local Similarity 97.2%;
les 35; Conservative
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APPLICATION NUMBER: 08/965,056

FILING DATE: CUNKNOWN
ATTORNEY/AGENT INFORMATION:

NAME: TOTChia, PhD., Timothy E.

REGLESTRATION NUMBER: 36,700

REFERENCE/DOCKET NUMBER: P1005R2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 i
                                    NUMBER OF SEQUENCES: 11 CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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                                                                                                  TITLE OF INVENTION: Constrained
                                                                                                                                                                                                                         APPLICANT: Andrew C. Braisted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 268 amino acids
TYPE: Amino Acid
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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STREET: 1 DNA Way
STREET: 1 DNA Way
                   ADDRESSEE: Genentech,
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Robert S. McDowell
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J. Christopher Phelan
                                                                                                                                        Melissa A. Starovasnik
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                                                                                                                       James A. Wells
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                                                                              Making
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 191; DB 10;
Pred. No. 3.1e-15;
1; Mismatches 0
                                                                              Same
                                                                                                  Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                         203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 268;
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Title:
Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  number of hits satisfying chosen parameters:
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                                                                                                                                                                                     Published_Applications_AA:*

1: /cgn2_6/ptodata/1/pubpaa/U
2: /cgn2_6/ptodata/1/pubpaa/U
3: /cgn2_6/ptodata/1/pubpaa/U
4: /cgn2_6/ptodata/1/pubpaa/U
6: /cgn2_6/ptodata/1/pubpaa/U
5: /cgn2_6/ptodata/1/pubpaa/U
6: /cgn2_6/ptodata/1/pubpaa/U
6: /cgn2_6/ptodata/1/pubpaa/U
7: /cgn2_6/ptodata/1/pubpaa/U
8: /cgn2_6/ptodata/1/pubpaa/U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      May 16, 2003, 11:20:00; Search time 15.759 Seconds (without alignments) 220.333 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-623-533A-537
194
1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
// Cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                 /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  362588
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

19	18	17	16	15	14	13	12	11	10	9	8	7	o	5	4	ω	2	۳	Result No.
189	189	189	189	189	189	189	189	189	189	189	189	189	189	190	191	191	191	192	Score
97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.9	98.5	98.5	98.5	99.0	Query Match
232	221	177	56	46	37	36	36	36	36	36	36	36	36	269	269	268	233	268	Query Match Length
9	9	9	10	10	9	10	10	10	10	10	9	9	9	10	10	10	10	10	DB
US-10-059-271-81	US-10-059-271-84	US-10-040-349B-2	US-09-779-451-4	US-09-779-451-41	US-09-848-616-176	US-09-854-816-108	US-09-854-816-1	US-09-834-628-1	US-09-779-451-5	US-09-796-202-10	US-09-493-346-1	US-10-116-797-1	US-09-874-475-16	US-09-854-816-46	US-09-854-816-12	US-09-854-816-9	US-09-854-816-50	US-09-854-816-13	ID
81,	84	Sequence 2, Appli			176,	Sequence 108, App	Sequence 1, Appli	Sequence 1, Appli	Sequence 5, Appli	Sequence 10, Appl	1,	Sequence 1, Appli	Sequence 16, Appl	Sequence 46, Appl	Sequence 12, Appl	Sequence 9, Appli	Sequence 50, Appl	Sequence 13, Appl	Description

45	44 .	43	42	41	40	39	38	37	36	35	34	ω G	32	31	. 30	29	28	27	26	25	24	23	22	21	20
187	187	187	187	187	187	188	188	188	188	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189
96.4	96.4	96.4	96.4	96.4	•		96.9					97.4	97.4	97.4	97.4	97.4	97.4			97.4		97.4		97.4	97.4
269	269	269	268	267	46	847	646	619	268	1186	1101	861	856	853	519	391	345	345	344	269	268	268	268	256	254
10	10	10	10	10	10	10	10	10	10			9	10	9	10	9	10	9	9	10	10	10	10	9	9
US-09-854-816-43	US-09-854-816-42			- 1	US-09-854-816-109	US-09-476-242-2	US-09-891-609-2	US-09-891-609-4	US-09-854-816-26	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1	-09-854-816	US-09-854-816-18	US-09-854-816-17	US-09-854-816-16	US-10-059-271-97	US-10-059-271-82
`	42	Sequence 6, Appli	Sequence 41, Appl	38	Sequence 109, App	-		Sequence 4, Appli	•	Sequence 55, Appl			Sequence 1, Appli	-	•	•	Sequence 8, Appli	Sequence 49, Appl	1,	28,	Sequence 18, Appl	Sequence 17, Appl	Sequence 16, Appl	Sequence 97, Appl	•

# ALIGNMENTS

ADDRESS: Genentech, Inc. DNA Way In San Francisco Ifornia ISA ISA ISA ISB PC compatible SYSTEM: PC compatible SYSTEM: PC compatible SYSTEM: PC compatible SYSTEM: PC compatible SYSTEM: PC compatible IM IN IN INDIVIDUAL (Genentech) ITION DATA: WINPATIN (Genentech) TION CURROWN> ON DATA: IN INDIVIDUAL (UKNOWN) ON DATA: IN INDIVIDUAL (UKNOWN) ON DATA: IN INDIVIDUAL (UKNOWN) ON DATA: IN INDIVIDUAL (UKNOWN) ON DATA: IN INDIVIDUAL (UKNOWN) ON UMBER: 08/965,056 E: CURKNOWN) INGRANTION: ING	CORRESPONDENCE ADDRESS:  CORRESPONDENCE ADDRESS:  ADDRESSEE: Genentech, Inc. STREET: 1 DNA Way  CITY: South San Francisco STATE: California  COUNTRY: USA ZIP: 94080  COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb COMPUTER: IBM PC compatible OPERATIOS SYSTEM: PC-DOS/MS-DO SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION NUMBER: US/09/854, FILING DATE: 15-May-2001  CLASSIETCATION UMBER: 08/965,056 FILING DATE: CUNKNOWN> APPLICATION UMBER: 08/965,056 FILING DATE: TORCHARTION:  REFERENCE/DOCKET NUMBER: 91005  TELEPHONE: 650/225-8674  TELEPHONE: 650/225-8674
1 2. Braisted 5. McDowell 5. McDowell A. Starovasnik Wells Constrained Helical Peptides and Methods of Making Same	LICATION (20151473A, 20151473A, ATION:  ATION: ATION: ATION: ATION: Robert: J. Chri: J. Chri: Melissa James A INVENTION

APPLICANT: APPLICANT:

Melissa A.

Starovasnik

Christopher Phelan

J. Kevin Judice Robert S. McDowell

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Вb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: TOICHIA, PhD., Timothy
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P100
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                           quence 14, Application US/07956483
tent No. 6261799
                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
COMPATING SYSTEM: PC-DOS/MS-DOS

OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                              SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                -956-483-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: WinPatin (Ger
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
                                                                                                                                                                                                                                                                             IUMBER OF SEQUENCES:
FILING DATE: 3: CLASSIFICATION:
            APPLICATION NUMBER: US/O
FILING DATE: 31-DEC-1992
                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                     STREET: P.O. Box
CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 97.: es 35; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Genentech, Inc
STREET: 1 DNA Way
CITY: South San Francisco
                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                       ADDRESSEE: Burns, Doane, STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ropology:
                                                                                                                                                                                                                                                                                                                                            INFORMATION:
                                                                                                                                                       3: Virginia
PRY: United States
22313-1404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                              KIENY, Marie-Paule.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Linear
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9p160 VARIANT
: 26
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97.2%;
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113
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                                US/07/956,483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/08/965,056
6271198-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Timothy E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P1005R2
                                                                                                                                                                                                                                       Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 191; DB 4; I
Pred. No. 2.7e-16;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                            SOLUBLE AND UNCLEAVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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; TOPOLOGY: 1; MOLECULE TYPE: US-07-956-483-14
                                                              Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                   TELEFAX: (703) 836-20: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 855 amino acids
                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 36,113
REFERENCE/DOCKET NUMBER: 01
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 02-MAY-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
638 YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: WO 9 FILING DATE: 12-NOV-1992
                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                  NAME: Crane-Feury, Sharon E
                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                             1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                amino acid
                                                                                                                                                                                                                                                                 (703)
                                                                Conservative
                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                  (703) 836-6620
                                                                                                                                                DNA (genomic)
                                                                                                                                                                                 single
                                                                                                                                                                                                                                                                 836-2021
                                                                              98.5%;
97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO 92/19742
                                                                                                                                                                                                                                                   14:
                                                                                                                                                                                                                                                                                                                   017753-005
                                                                              Score 191; DB 4;
Pred. No. 9.5e-16;
                                                                Mismatches
                                                                  0
                                                                                             Length 855;
                                                                Indels
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Search completed: May 16, 2003, 11:22:13 Job time: 10.1928 secs

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Gaps

0,

0

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LENGTH: 138
; TYPE: PRT
; ORGANISM: Human
US-09-570-921-27
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Sequence 27, Application US/09570921

Patent No. 6455265
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US-08-965-056-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/570,921
CURRENT FILING DATE: 2000-05-15
PRIOR APPLICATION NUMBER: PCT/FR98/02447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: METHOD FOR OBTAINING VACCINES FOR PREVENTING THE TITLE OF INVENTION: PATHOGENIC EFFECTS RELATED TO A RETROVIRAL INFECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: FR/97/14387 PRIOR FILING DATE: 1997-11-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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              NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                             ATTORNEY/AGENT INFORMATION:
NAME: TORCHIA, PhD., Timoth,
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/965,05
FILING DATE: 05-No. 6271198-1997
                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Andrew C. Braisted APPLICANT: J. Kevin Judice APPLICANT: Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                    FILING DATE: 05
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                              STREET: 1 DNA Way
CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99 YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF 134
                                TELEFAX:
                                                TELEPHONE:
                                                                                                                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
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6271198
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CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/08965056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Melissa A. Star
James A. Wells
                                650/952-9881
                                                                                                                                                                                                                         WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Christopher Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   Genentech, Inc
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                                                                                                                                                                                                                                                                           3.5 inch,
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UMBER: PCT/FR98/02447
1998-11-17
                                                                                                                                                                                                                                                                                                                                                                                                                                     Making Same
113
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97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Constrained Helical Peptides and Methods of
                                                                                                                                                                                        US/08/965,056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Starovasnik
                                                                                                                Timothy E.
                                                                                                                                                                                                                                                                           1.44 Mb floppy disk
                                                                                   P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 191; DB 4; Pred. No. 1.3e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 138;
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RESULT 14 US-08-965-056-12

0

Sequence 12, Application US/08965056 Patent No. 6271198

GENERAL INFORMATION:

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                                                                                                                         US-08-965-056-9
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US-08-965-056-9
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                                                              Matches
                                                              Best Local Similarity Matches 35; Conserv
                                                                                           Query Match
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Best Local
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                                                                                                                                                                                                  TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 9:
                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb i
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MinPatin (Genentech)
                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: US
FILING DATE: 05-No. 62
                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: TOTCHIA, PhD., TIMOTH,
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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168 YTSLIYTLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity hes 35; Conserv
                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: South San Francisco
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                            1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 94080
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                                                                                                                                                    : 268 amino acids
Amino Acid
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Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             California
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                                                                                                                                                                                                               650/952-9881
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Kevin Judice
                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Melissa A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Christopher Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Andrew C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                       Linear
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                                                                            98.5%;
97.2%;
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97.2%;
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6271198-1997
                                                                                                                                                                                                                                                                                          Timothy E.
                                                                                                                                                                                                                                                                                                                                                                                                                                 1.44 Mb floppy disk
                                                                                                                                                                                                                                                               P1005R2
                                                                            Score 191; DB 4;
Pred. No. 2.7e-16;
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                                                              Mismatches
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                                                                                                                                                                                        Patent No.
                                                                                                                                                                                                         Sequence 6,
                                                                                                                                                                           GENERAL INFORMATION:
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tent.No. 5576000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 345
STREET: NEW YORK
CITY: NEW YORK
TATE: NEW YORK
                                             CORRESPONDENCE ADDRESS:
                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: LESLIE A. SERUNIAN
REGISTRATION NUMBER: 35,353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: GARTNER TITLE OF INVENTION: TITLE OF INVENTION:
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                                                                                                             APPLICANT:
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ADDRESSEE: MORGAN & FINNEGAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                    636 YTSIIYSLIEESQNQQEKNEQELLELDKWASLWNWF 671
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/022,835
FILING DATE: 25-FEB-193
APPLICATION NUMBER: US 07/599,491
FILING DATE: 17-OCT-1990
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OPERATING SYSTEM:
                STREET:
                               ADDRESSEE:
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GY: linear
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   NEW YORK
                                                                                                                                                                                                         Application US/08647714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              855 amino acids
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                345 PARK AVENUE
                                                                                                                                                        REITZ, JR., MARVIN S.; FRANCHINI,
                                                                                                                   GENOVEFFA; MARKHAM, PHILIP D. GALLO, ROBER'
C.; LORI, FRANCO C.; POPOVIC, MIKULAS; AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GARTNER, SUZANNE
VENTION: MOLECULAR CLONES OF HIV-1
                                                                                                           GARTNER, SUZANNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (212) 751-6849
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GENOVEFFA; MARKHAM, PHILIP D. GALLO, ROBERT
C.; LORL, FRANCO C.; POPOVIC, MIKULAS; AND
                                                                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IBM PC COMPATIBLE
                              MORGAN & FINNEGAN
                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
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                                                                             MOLECULAR CLONES OF HIV-1
AND USES THEREOF
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Pred. No. 7.
                                                                                                                                                                                                                                                                                                                                                      Mismatches
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; MOLECULE TYPE:
US-08-647-714-6
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US-09-570-921-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-09-570-921-12
                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
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Patent No. 6455265
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Best Local Similarity
                                                               Matches
                                                                                                                                                                                               SEQ ID NO 12
                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: FR/
PRIOR FILING DATE: 1997-11-17
NUMBER OF SEQ ID NOS: 144
                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/570,921
CURRENT FILING DATE: 2000-05-15
                                                                                                                                                                                                                  SOFTWARE:
                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: PCT/FR98/02447 PRIOR FILING DATE: 1998-11-17
                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
TITLE OF INVENTION:
FILE REFERENCE: 106
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                                                              LENGTH: 138
TYPE: PRT
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LENGTH: 855 amino acio
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 25-FEB-1993
APPLICATION NUMBER: US 0'
FILING DATE: 17-OCT-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/01
FILING DATE: 15-FEB-1995
APPLICATION NUMBER: US 01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
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COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
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TELEX:
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                                                                                                                                                                                                                 PatentIn
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                                                                                                                                                                                                                                                                                                                                                                                                 SERRES, PIERRE-FRÂNCOIS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2: (212) 758-4800
(212) 751-6849
                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein
                                                                                                                                                                                                                  Ver.
                                                                                                                                                                                                                                                                                                                                                                METHOD FOR OBTAINING VACCINES FOR PREVENTING THE PATHOGENIC EFFECTS RELATED TO A RETROVIRAL INFECTION
                                                                                                                                                                                                                                                                                                              2000-05-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.0%;
97.2%;
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                                                                             Score 191; DB 4;
Pred. No. 1.3e-16;
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Pred. No. 7.2e-16;
                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 13,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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TELEFAX: 650/952-9881
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb f
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                 REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
                                                                                   CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, Phb., Timothy E.
REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
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                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match 100.0%;
Local Similarity 100.0%;
les 36; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 14918-704
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-393-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Haliday, Emily
REGISTRATION NUMBER: 38903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                               SSEE: Genentech, Inc.
T: 1 DNA Way
South San Francisco
                                                                                                                                                                                                                                                                                                 94080

    Application US/08965056
6271198

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 415-393-2286 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 09/134,075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/492,739
                                                                                                                                                                                                                                                                                                                                    California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 850 amino acids
                                                                                                                                                                                                                                                                                                                  USA
              650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Melissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         James A. Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Andrew C.
                                                                                                                                                         05-No.
                                                                                                                                                                                                                                                                                                                                                                                                                      Making Same
: 113
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                                                                                                                                                                         US/08/965,056
                                                                                                                                                                                                                                                             1.44 Mb floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 194; DB 4
Pred. No. 4e-16;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 850;
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                                                                                                              MOLECULE TYPE: protein US-08-022-835-6
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                                                          Matches
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                                                                    Query Match
Best Local Similarity
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Best Local Similarity
Matches 35; Conser
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                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                              REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: WTS
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
                                                                                                                                                                                                                                                                                                     FILING DATE: 17-OCT-1990
ATTORNEY/AGENT INFORMATION:
NAME: SCOLL, WALSON T.
                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 20036-5601
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
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636 YTSIIYSLIEESQNQQEKNEQELLELDKWASLWNWF 671
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                                                                                                                                            TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                  TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: D.C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
                                                                                                                                                                        LENGTH:
               1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6, Application US/08022835
5. 5420030
                                                                                                                                                                                                                  X: (202) 822-0944
6714627 CHSH
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Amino Acid
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                                                                                                                                                                         855 amino acids
                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Franchini,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lori, Franco
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                                                                    99.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULAR CLONES OF HIV-1 AND USES THEREOF
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97.2%;
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Genoveffa
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                                                                                                                                                                                                      6
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                                                                    Score 192; DB 1; Pred. No. 7.2e-16;
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Pred. No. 2e-16;
                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Version #1.25
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                                                        Indels
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PRIOR FILING DATE: 1998-05-20 NUMBER OF SEQ ID NOS: 1667 SOFTWARE: FastSEQ for Windows Version SEQ ID NO 642

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                                                                                                         US-08-448-603A-28
                                                      Matches
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Best Local :
                                                                              Query Match
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TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            quence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Berman, APPLICANT: Nakamura, Gerald R.
APPLICANT: Nakamura, Gerald R.
TIMENTION: HIV Envelope Polypeptides
                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                              REGISTRATION NUMBER: 38903
REFERENCE/DOCKET NUMBER: 14
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-393-2000
                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/072,833
FILING DATE: 07-JUN-93
                                                                                                                                                                                                                                                                                                FILING DATE: 07-JUN-93 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
632
                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 07-JUN-1994
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: San Francisco
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  / Match 100.0%; Score 194; DB 4;
Local Similarity 100.0%; Pred. No. 1.3e-17;
nes 36; Conservative 0; Mismatches 0;
                                                                                                                                 TYPE: amino acid
STRANDEDNESS: sin
                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
                                                                 Local Similarity
                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                   TELEFAX: 415-393-2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 94111
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                                                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28, AF.
15864027
YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION:
                                                      36;
                                                                                                                                                                                                                                                                                   Haliday, Emily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/08448603A
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                                                                                                                                                          850 amino acids
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                                                      Conservative
                                                                                                                      linear
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                                                   Score 194; DB 2
Pred. No. 4e-16;
Mismatches
                                                                              DB 2;
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US-09-492-739-28
; Sequence 28, Application
; Patent No. 6331404
; GENERAL INFORMATION:

Application US/09492739

COUNTRY: USA
ZIP: 94111
COMPUTER READABLE FORM:

CITY: San Francisco STATE: CA

COMPUTER: OPERATING

IBM Compatible SYSTEM: DOS

MEDIUM TYPE: Diskette

CORRESPONDENCE ADDRESS:
ADDRESSEE: McCutchen, Doyle, Brown & Enersen, LLP
STREET: 3 Embarcadero Center

Nakamura, Gerald R.
TITLE OF INVENTION: HIV Envelope Polypeptides
NUMBER OF SEQUENCES: 33

APPLICANT: Berman, Phillip W

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RESULT 4
US-09-134-075-28
                                                                                                                       US-09-134-075-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 6042836 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 28, Application US/09134075 Patent No. 6042836
                                                           Query Match
Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: 415-393-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: PRIOR APPLICATION DATA:
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632 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 667
                                                                                                                                   STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                   TELEPHONE: 415-393-2286
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/134,075 FILING DATE:
                                                                                                                                                                      TYPE:
                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                           NAME: Haliday, Emily REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
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              1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                   LENGTH:
                                                                                                                                                                    amino acid
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                                                                                                                                                                               850 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
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VENTION: HIV Envelope
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                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McCutchen, Doyle,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Diskette
                                                                                                                                                   single
                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                       08/448,603
                                                                                                                                                                                                                                                                                                           38903
                                                            0;
                                                                                                                                                                                                                                                                                              14918-704
                                                           Score 194; DB 3
Pred. No. 4e-16;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Brown & Enersen, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Polypeptides
                                                                                         DB 3;
                                                            0;
                                                                                       Length 850;
                                                            Indels
                                                            0;
                                                         Gaps
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GenCore version 5.1.4_p5_4578

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OM protein - protein search, using sw model

Run on: May 16, 2003, 11:03:40; Search time 10.1928 Seconds (without alignments)

Title: US-09-623-533A-537

Perfect score: 194
Sequence: 194
Sequence: 1 YTSLIYSLIEESQNQQEKNEQELLELDKWASLWNWF 36

Scoring table: BLOSUM62
Gapop 10.0, Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Minimum DB seq length: 0
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Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Issued\_Patents\_AA:\*
1: /cgn2\_6/ptodata/1/iaa/5A\_COMB.pep:\*
2: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep:\*
3: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep:\*
4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep:\*
5: /cgn2\_6/ptodata/1/iaa/PCTUS\_COMB.pep:\*
6: /cgn2\_6/ptodata/1/iaa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match L	Length	ĎВ	ID	Description
1	194	100.0	36	4-	US-09-082-279B-642	Sequence 642, App
2	194	100.0	36	4	-09-315-304B-64	e 642,
ω	194	•	850	Ν	-08-448-603A-	e 28, 1
4	194	100.0	850	ω	9-134-075-2	Ø
u	194	100.0	850	4	US-09-492-739-28	e 28,
0	192	9.	268	4	-08-965-056-1	13
7	192	9	855	_	2-835-	Sequence 6, Appli
8	192	99.0	855	۲		σ
9	192		855	N	1	Sequence 6, Appli
10	191		138	4	-570-921-1	e 12,
11	191		138	4	0-92	27,
12	191	•	233	4	US-08-965-056-50	50,
13	191	98.5	268	4	5-(	
14	191		269	4	US-08-965-056-12	12
15	191		855	4	6-483-1	14
16	191	•	887	4	US-08-472-240A-5	
17	190	97.9	269	4	US-08-965-056-46	46
18	189	97.4	36	_	3-028-	_
19	189	97.4	36	ω	US-08-486-099-1	۲,
20	189	97.4	36	ω	US-09-071-877-1	1,
21	189	97.4	36	ω	US-08-360-107A-1	۳,
22	189	97.4	36	w	US-08-484-223B-1	1,
23	189	97.4	36	ω	9-5	1,
24	189	97.4	36	w	US-08-475-668A-1	_
25	189	97.4	36	w	-08-485-551A-	۳.
26	189	97.4	36	ω	-471-913A-	1,
27	189	97.4	36	4	US-08-554-616-1	1,

189 97.4 36 4 US-08-485-279B-15 189 97.4 36 4 US-09-082-279B-497 189 97.4 36 4 US-09-082-279B-498 189 97.4 36 4 US-09-082-279B-603 189 97.4 36 4 US-09-082-279B-603 189 97.4 36 4 US-09-082-279B-631 189 97.4 36 4 US-09-082-279B-705 189 97.4 36 4 US-09-082-279B-1076 189 97.4 36 4 US-09-082-279B-11776 189 97.4 36 4 US-09-082-279B-11776 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-082-279B-1121 189 97.4 36 4 US-09-045-920-1 189 97.4 36 4 US-08-474-349A-1 189 97.4 36 4 US-08-474-349A-1
2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
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US-08-485-264A-1 US-09-082-279B-15 US-09-082-279B-498 US-09-082-279B-603 US-09-082-279B-631 US-09-082-279B-631 US-09-082-279B-631 US-09-082-279B-1176 US-09-082-279B-1161 US-09-082-279B-1161 US-08-965-056-1

### ALIGNMENTS

YTSLIVSLIEESONQOEKNEQELLELDKWASLWNWF 36	Query Match 100.0%; Score 194; DB 4; Length 36; Best Local Similarity 100.0%; Pred. No. 1.3e-17; Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps	RESULT 1 US-09-082-279B-642 ; Sequence 642, Application US/09082279B ; Patent No. 6238782 ; GENERAL INFORMATION: APPLICANT: Barney, Shawn APPLICANT: Barney, Shawn APPLICANT: Merutka, Gene APPLICANT: Anwer, Mohmed APPLICANT: Lambert, Dennis TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED TITLE OF INVENTION PHARMACONINETIC PROPERTIES FILE REFERENCE: 7872-043 ; CURRENT APPLICATION NUMBER: US/09/082,279B ; CURRENT FILING DATE: 1998-05-20 ; NUMBER OF SEQ ID NOS: 1515 ; SOFTWARE: FASTSEQ for Windows Version 3.0 ; SEQ ID NO 642 ; LENGTH: 36 ; TYPE: PRT ORGANISM: Artificial Sequence ; FEATURE: ; OTHER INFORMATION: Core polypeptide US-09-082-279B-642
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Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Meximum Match 100%
Listing first 45 s
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  al number of hits satisfying chosen parameters:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         seq
   length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     May 16, 2003, 11:04:54; Search time 12.1446 Seconds (without alignments) 284.970 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0 ,
                                                                                                                                                                                                                                                                                 Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      283224 seqs, 96134422 residues
   Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-623-533A-540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gapext 0.5
 S13288
VCLJJH3
VCLJSY
S21998
S21998
S21998
S21998
S13299
VCLJVL
S22002
S22000
S70417
VCLJVL
S21208
S21208
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S22000
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VCLJZR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     283224
env polyprotein -
env protein - huma
env polyprotein pr
env polyprotein pr
env polyprotein g
envelope protein g
envelope protein g
envelope protein pr
env polyprotein pr
env polyprotein pr
envelope glycoprotein pr
envelope protein g
env polyprotein pr
envelope protein g
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Query Match 98.0%; Score 192; DB 2; Length Hest Local Similarity 97.2%; Pred. No. 3.2e-15; Matches 35; Conservative 1; Mismatches 0; Inde.	RESULT 2 S13288 env protein - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Accession: S13288 R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; [ Nature 348, 69-73, 1990 A;Title: HIV-1 tropism for mononuclear phagocytes can be A;Reference number: S13288; MUID:91043044; PMID:2172833 A;Accession: S13288 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-854 <obr> C;Superfamily: type E retrovirus env polyprotein</obr>	Query Match  98.0%; Score 192; DB 2; Length Best Local Similarity 97.2%; Pred. No. 3.2e-15;  Matches 35; Conservative 1; Mismatches 0; Inde  Qy 1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36	RESULT 1 S33995 env polyprotein - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change C;Accession: S33985 R;Carlin1, F. submitted to the EMBL Data Library, November 1991 A;Reference number: S33979 A;Accession: S33985 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-851 < <ar> A;Cross-references: EMBL.211530; NID:g60192; PIDN:CAA77628.1; P C;Superfamily: type E retrovirus env polyprotein</ar>	ALIGNMENTS	30 167 85.2 861 1 VCLJKB 31 167 85.2 868 1 VCLJKB 32 166 84.7 859 2 TO1672 33 163 83.2 454 2 B41621 34 159 81.1 136 2 JT0956 35 159 81.1 136 2 JT0954 36 151 77.0 357 2 S21990 37 149 76.0 854 1 VCLJSI 38 148 75.5 856 1 VCLJSI 39 135 68.9 877 2 S49197 40 118 60.2 863 2 A53034 41 85 43.4 881 2 S03068 42 85 43.4 881 2 S03068 43 85 43.4 881 2 S03068 44 42.9 151 2 S30452
ngth 854; Indels 0; Gaps 0;	"lext_change 31-Oct-1997 "Q.; Diagne, A.; Idler, K.; Zack, an be determined by regions of gp1 2833	ngth 851; Indels 0; Gaps 0;	change 26-Aug-1999		env polyprotein pr env polyprotein - envelope polyprote env polyprotein D. envelope polyprote envelope polyprote envelope protein g env polyprotein pr env polyprotein pr env polyprotein - env protein - huma env protein - huma

RESULT VCLJH3

В Ωy

636  $\vdash$ 

YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 671

polyprotein precursor •

human immunodeficiency virus

type 1 (isolate

HTLV-III,

BH10

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Вb
                                                                                                                                         δδ
                                                                                                                                                                                                                                                 F;31-516/Product: exterior membrane glycoprotein #status predicted <EXT>
F;517-861/Product: transmembrane glycoprotein #status predicted <TMM>
F;517-861/Product: transmembrane glycoprotein #status predicted <TMM>
F;888.136,141,146,161,165,191,202.239,246,267,281,294,300,306,337,344,361,391,397,402,
F;888.136,141,146,161,165,191,202.239,246,267,281,294,300,306,337,344,361,391,397,402,
F;8616,621,630,642,679,755,821/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N; Alternate names:
C; Species: human in
                env
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R; Wain-Hobson, S.; S
Cell 40, 9-17, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Title: Complete nucleotide sequence of the AIDS virus, A; Reference number: A93353; MUID:85111123; PMID:2578615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nberger, J.A.; Papas, T.S.; Ghrayeb, Nature 313, 277-284, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                     VCLJSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title: Nucleotide sequence
A; Reference number: A90866; N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Note: host Homo sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N; Alternate names:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              env polyprotein
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A; Residues: 1-856 < RAT>
 N; Alternate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VCLJLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: GB:M15654; GB:K02008; GB:K02009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A:Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Superfamily: type E retrovirus env polyprotein; superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ratner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Species: human immunodeficiency virus
                                                                                                                                                                                                 Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Keywords: AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                psidues: 1-861 <WAI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Accession: A0397
                                                                                                                                                                                                                                                                                                                      -30/Domain: signal sequence #status predicted
                polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                 coss-references:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L.; Haseltine, W.; Patarca,
                                                                                                         YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                             YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
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                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                precursor - human
                precursor
                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pe E retrovirus env polyprotein; capsid protein; coat protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sonigo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             coat polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                               GB:K02013; NID:g326417; PIDN:AAB59751.1; PID:g326424
polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98.0%;
97.2%;
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUID:85099333;
                  human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 192;
Pred. No. 3.
                                                                                                                                                                                               Score 192;
Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunodeficiency virus
                  immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      virus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chang, N.T.; Starcich, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cole,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PMID: 2981635
                                                                                                                                                                                                                DB 1;
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                                                                                                                                                                                                                Length 861;
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                  1 (isolate
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                  R; Steuler, H.; St
submitted to the
                                                    C; Accession: S21998; S70425
                                                                      C; Species: human immur
A; Variety: isolate 28
C; Date: 20-Feb-1995 #s
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A; Variety: isolate 27B
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                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A; Accession: $70421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Steuler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R; Steuler, H.;
                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Accession: S21994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number:
                                                                                                                                                                                                                                                                                                           Query
Best L
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Best Local
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                                                                                                                                                                                                                                                                                          34;
                                     Storch-Hagenlocher, B.; Wildemann, B.;
                  EMBL Data Library,
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A; Kerez
A; Accession: B289zz
A; Molecule type: DNA
A; Molecule type: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Virology 164, 531-536, 1988
A; Title: Envelope sequences
A; Reference number: A28922;
                                                                                                                                                                                                                                                                                                           A; Residues: 1-140,'X',142-312,'X'
A; Cross-references: EMBL:X61355;
C; Superfamily: type E retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                            AIDS Res. Hum. Retroviruses 8, 33, 37, 37, AIT.
A;Title: Distinct populations of human immunodeficiency
A:Reference number: $70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Date: 20-Feb-1995 #sequence_revision C; Accession: S21994; S70421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C; Date: 31-Dec-1990 #sequence_revision
C; Accession: B28922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C:Species: human immunodeficiency virus type 1, A;Note: host Homo sapiens (man)
                                                  envelope protein gp120/gp41 - human immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Description: Distinct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:X61355; NID:g60179; PIDN:CAA43622.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-357 <STEl>
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nes 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein gp120/gp41 - human immunodeficiency virus
                                                                                                                                                                        YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                      YTTLIYTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 H.; Storch-Hagenlocher, B.; Wild
dum. Retroviruses 8, 53-59, 1992
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531-536, 1988
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                                  immunodeficiency
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$21990
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97.28;
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NID:g60179
                                                                                                                                                                                                                                                                                                             env polyprotein
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Pred. No. 5.6e
1; Mismatches
                                    virus
                                                                                                                                                                                                                                                      Score 187; DB 2;
Pred. No. 4.7e-15;
                                                                                                                                                                                                                                                                      Score 187;
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of HIV-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wildemann,
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                                  type 1,
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5.6e-15;
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                                                      type
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#sequence\_revision

20-Feb-1995 #text\_change

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and Hacke,

cerebrospinal fluid

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A;Residues: 1-443 <BUR>
A;Cross-references: GB:M77230; NID:g328631; PIDN:AAB03792.1; PID:g555015
A;Note: this virus was isolated from the mother's sexual partner
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-222, 'X', 224-358 <STE2>
A; Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1;
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A;Title: Distinct populations of human immunodeficiency virus A;Reference number: $70417; MUID:92144209; PMID:1736940
A;Accession: $70425
                                                                                                                                                                      R;Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguyen, P.N.; Gibbs, R.A. Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
A;Title: Evolution of human immunodeficiency virus type 1 nucleotide sequence A;Reference number: A41621; MUID:92107924; PMID:1763038
                                                                                                                                                                                                                                                                                                                                          C; Species: human immunodeficiency virus.type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1; PID:g1067129 A;Experimental source: patient 27L A;Note: submitted to the EMBL Data Library, July 1991 C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency virus
A;Reference number: $70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C:Species: human immunodeficiency virus type 1, HIV-1
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
C:Accession: S70422; S21996
                                                                                                                                            A; Reference number: A41621;
A; Accession: C41621
                                                                                                                                                                                                                                                                                    A;Note: host Homo sapiens (man)
C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_ghange 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                       N;Alternate names: coat polyprotein
N;Contains: amino end of coat protein gp41;
                                                                                                                                                                                                                                                                                                                                                                                                                      env polyprotein P - human immunodeficiency virus type 1 (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, AIDS Res. Hum. Retroviruses 8, 53-59, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         envelope protein gp120/gp41 - human immunodeficiency virus
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C;Genetics:
A;Gene: env
                                                                                                                       A; Molecule type:
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A; Residues: 1-357 <ST2>
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94.48;
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94.4%;
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Pred. No. 6.3e-15;
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Pred. No. 4.8e-15;
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A;Gene: env
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein; transmembrane protein
C;Keywords: coat protein; glycoprotein; polyprotein; transmembrane protein
F;1-29/Domain: signal sequence #status predicted <SIG>
F;30-501/Product: coat protein gp120 #status predicted <GP1>
F;502-847/Product: coat protein gp41 #status predicted <GP2>
F;502-847/Product: coat protein gp41 #status predicted <GP2>
F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,354,360,390,394,404,447,
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C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency;
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency;
C;1-251/Product: coat protein gp120 (fragment) #status predicted <GP1>
F;252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>
F;424-443/Domain: transmembrane #status predicted <MNN>
F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Date: 30-Sep-1988 #sec
C;Accession: A24774
R;Starcich, B.R.; Hahn,
Cell 45, 637-648, 1986
                                                                                                                                                                                                                                                                                    R; Pang, S.; Vinters, H.V.; submitted to the EMBL Data A; Reference number: Z16673
                                                                                                                                                                                                                                                                                                                                                          envelope glycoprotein - human immunodeficiency virus type 1 (strain JRFL) C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-Nov-19 C;Accession: T09448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: GB:K03455; GB:m38432; NID:g1906382 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N;Contains: coat protein gp120; coat protein gp41
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-1988 #text_change
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A; Residues: 1-856 <S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Title: Identification and characterization of conserved A; Reference number: A24774; MUID:86218077; PMID:2423250
                                                                                         A; Gene: env
C; Superfamily:
                                                                                                                                                               A;Cross-references: EMBL:U63632; NID:g1465777; PID:g1465781
                                                                                                                                                                                        A; Residues: 1-847 < PAN>
                                                                                                                                                                                                            A; Molecule type: DNA
                                                                                                                                                                                                                                  A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                             A; Accession: T09448
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                   Query Match
Best Local
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                      93.4%;
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Library, July 1996
                                                                                         env polyprotein
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No. 1.1e-14;
                                          Score 183;
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Pred. No. 2.2e-14;
                      Pred. No.
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                      8e-14;
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                                       Length 847;
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0;
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Gaps
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1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36

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629

YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF 664

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envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 3L C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change C;Accession: S22002; S70418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Title: HIV-1 tropism for mononuclear phagocytes can be determined A;Reference number: S13288; MUID:91043044; PMID:2172833 A;Accession: S13289
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C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991 A;Description: Distinct populations of HIV-1 in blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 1, HTV-1
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Nature 348, 69-73,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R; Muesing, M.A.; Smi
Nature 313, 450-458,
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A; Residues: 1-847 <OBR>
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A; Residues: 1-856 < MUE>
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A;Accession: A03974
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Superfamily: type E retrovirus env polyprotein (Superfamily: type E retrovirus env polyprotein; immunodeficiency; polyproteyords: AIDS; capsid protein; coat protein; slycoprotein; immunodeficiency; polyproteyords: signal sequence #status predicted <SIG>
30/Domain: signal sequence #status predicted <EXT>
1-511/product: systemior membrane glycoprotein #status predicted <EXT>
512-856/Product: transmembrane glycoprotein #status predicted <TMM>
512-856/Product: transmembrane glycoprotein #status predicted <TMM>
88,136,141,156_160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,406
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94.4%;
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Pred. No. 3.8e-14;
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Pred. No. 3.9e-14;
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A;Residues: 1-358 <STE>
A;Cross-references: EMBL:x61351
C;Superfamily: type E retrovirus env polyprotein
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A; Accession. coaca
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                                                                                                                                                                                                                                                                                                                                                                        C; Accession: S22000
                                                                                                                                                                                                                                                                                                                                                                                       C;Species: human immunodeficiency virus C;Date: 20-Feb-1995 #sequence_revision
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C;Species: human immunodeficiency virus type 1, HTV-1
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 12-Apr-1995
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A;Res(dues: I-333,'X', 335-358 <STE2>
A;Cross-references: EMBL:X61352; NID
C;Superfamily: type E retrovirus env
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A; Residues: 1-358 <STE1>
A; Cross-references: EMBL: X61352: NID: g60186; PIDN: CAA43616.1; PID: g60187
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human	human	human	simian	simian	human	P19503 simian immu	simian	human	human	simian	simian

## ALIGNMENTS

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Ratner L., Haseltine W., Patarca R., Livak K.J., Starcich Ratner L., Haseltine B., Rafalski J.A., Whitehorn E.A., Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A., Baumeister K., Ivanoff L., Petteway S.R. Jr., Peparson M.L. Baumeister K., Ivanoff L., Ohrayeb J., Chang N.T., Gallautenberger J.A., Papas T.S., Ghrayeb J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T., Gallautenberger J., Chang N.T.,
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J. Biol. Chem. 265:10373-10382(1990).
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MEDLINE=87299196; PubMed=3040055;
Ratner L., Fisher A., Jagodzinski
Gallo R.C., Wong-Staal F.;
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15-JUL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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EMBL; AF038399; AAB99976.1; --
EMBL; AF038391; AAC82596.1; --
HIV; K03455; ENV$HXB2.
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NCBI_TaxID=11706;
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es; Retroviridae; Lentivirus.
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TRANSMEMBRANE GLYCOPROTEIN.

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                                                                                                                                                                                                                                                                                                                                                                                                  13-AUG-1987 (Rel. 05, Created)
101-FEB-1996 (Rel. 33, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP41)].
                                                                                                                                    AIDS;
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NCBI_TaxID=11707;
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Q70626:
15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
          EMBL; U12055; GlycoSuiteDB;
                                                            modified
                                                                                the
                                                                                                                  MEDLINE-95127297; PubMed-7826699;
Reitz M.S. Jr., Hall L., Robert-Guroff M., Lautenb Shaw G.M., Kong L.I., Weiss S.H., Waters D., Gallo "Viral variability and serum antibody response in infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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                                    s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way ified and this statement is not removed. Usage by and for commercial ities requires a license agreement (See http://www.isb-sib.ch/announce/send an email to license@isb-sib.ch).
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                                                                                                                                                                                                             immunodeficiency virus type 1 (LW12.3 isolate) (HIV-1). es; Retroid viruses; Retroviridae; Lentivirus.
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  IPR000328;
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l; Mismatches
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Pred. No. 4
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4.3e-16;
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DT 115-JT
DT 15-JT
DE Envel
DE Envel
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OS Human
OC Virus
OX NCBIL
RN [1]
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Best Local S
Matches 35
Human immunodeficiency v
Viruses; Retroid viruses
NCBI_TaxID=11686;
[1]
                                                                                       21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: glycoprotein (GP120): Transmembrane glycoprotein ENV.
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P03377;
21-JUL-1986
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97.2%;
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                                                  Retroviridae;
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Matches 35
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A03975; VCLJLV.
K02013; ENV$BRU.
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MEDLINE-88219542; PubMed-3369091;

Gurgo C., Guo H.-G., Franchini G., Aldovini A., Collalti E.,

Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. Jr.;

"Envelope sequences of two new United States HIV-1 isolates.";

Virology 164:531-536(1988).

-!- MISCELLANEOUS: THE SC ISOLATE WAS TAKEN FROM AN ARC PATIENT
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01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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HIV; M17450;
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Viruses; Retroid viruse
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AIDS; C
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J. Virol.
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                                                        InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
                                                                                          EMBL; M33943; AAA44850.1; -. HIV; M33943; ENV$MFA.
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                                                                                                                                                                                                                      Wasiak A.;
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gerty S., Lamonica C.,
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GP160 precursor (Contains: E
Transmembrane glycoprotein
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Retroviridae; Lentivirus.
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RESULT 9
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C p19549;
T 01-FEB-1991 (Rel. 17, Created)
T 01-FEB-1991 (Rel. 17, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Envelope polyprotein GP160 precursor [Contains: Ext
-1"coprotein (GP120); Transmembrane glycoprotein (
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This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content
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                                               replication, and cytopathicity the viral genome.";
                                                     Human immunodeficiency
Viruses; Retroid virus
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                                                                              MEDLINE=90317906;
                                                                                       SEQUENCE FROM
                                                                                                      NCBI_TaxID=11690;
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34; Conservative
                                       genome.";
64:4016-4020(1990).
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es; Retroviridae; Lentivirus
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RESULT 10

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01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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InterPro; IPR000777; GP120.
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the European Bioinformatics Institute. There are no restrictions on its
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or send an email to license@isb-sib.ch).
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SEQUENCE FROM N.A.
MEDLINE=90347835; PubMed=2384920;
Cheng-Mayer C., Quiroga M., Tung J.W., Dina D., Levy J.;
"Viral determinants of human immunodeficiency virus type
"Viral determinants of human indicated antigen mc
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Interpro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
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HIV; M38428; ENV$SF162
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MEDLINE-86218077; PubMed=2423250;

MEDLINE-86218077; PubMed=2423250;

Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D., Modrow S., Words B.S., Parks W.P., Josephs S.F., Gallo R.C., Wong-Staal F.

Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., Wong-Staal F.

"Identification and characterization of conserved and variable regions in the envelope gene of HTLV-III/LAV, the retrovirus of
                                                                                                                                                                                                                                                                                         InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
ALDS; Coat protein; Polyprotein;
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Viruses; Retroid viruses; Retroviridae; Lentivirus
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polyprotein GP160 precursor [Contains: I
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Muesing M.A., Capon D.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE-85111157;
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InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  986 (Rel. 01, Last sequence update)
999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains: I
tein (GP120); Transmembrane glycoprotein
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CAA25903.1;
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97526 MW;
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Pred. No. 3.2e
1; Mismatches
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RESULT 13
ENV_HV1J3
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ID _HV2J4
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AC P124E
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Best Local (
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    Pfam; PF00516; GP120; 1.

    Pfam; PF00517; GP41; 1.

    ALDS; Coat protein; Polypr

    Signal.

    SIGNAL

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01-OCT-1989 (Rel. 12, Created)
01-OCT-1989 (Rel. 12, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: glycoprotein (GP120); Transmembrane glycoprotein
  DISULFID
                                                                                                    EMBL;
                                                                                                                                                           the
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                                                                                                                                                                                           Komiyama N., Hattori N., Inoue J., Sakuma S. "Nucleotide sequences of gag and env genes of HIV-1 and their expression in bacteria."; AIDS Res. Hum. Retroviruses 5:411-419(1989).
                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE=89352108; PubMed=2669897;
                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1 Viruses; Retroid viruses; Retrovirio
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NCBI_TaxID=11694;
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                                                                          InterPro;
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                                                                         M21138; ENV$JH3.
erPro; IPR000328; Env_GP41.
erPro; IPR000777; GP120.
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TRANSMEMBRANE GLYCOPROTEIN.
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                                              Glycoprotein;
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RESULT 14
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P03378;
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MEDLINE-85090453; PubMed-2578227;
MEDLINE-85090453; PubMed-2578227;
Sanchez-Pescador R., Power M.D., E
Stemplen M.M., Brown-Shimer S.L.,
Stemplen M.M., Dina D., Luciw P.A.;
Devy J.A., Dina D., Luciw P.A.;
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
glycoprotein (GP120); Transmembrane glycoprotein
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Viruses; Retroid virus
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MEDLINE-86235450; PubMed=3012778;
Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R.
Salahuddin S.Z., Wong-Staal F., Gallo R.C., Par
"Genetic variation in HTLV-III/LAV over time in
at risk for AIDS.";
Science 232:1548-1553(1986).
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Interpro: IPR000328; Env\_GP41.
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pfam; PF00517; GP41: 1. equires a license agreement (See http://www.isb-sib.ch/announce/email to license@isb-sib.ch). protein; Polyprotein; Glycoprotein; Transmembrane; GLYCOPROTEIN

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# SUMMARIES

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Reitz M., Hall L., Robert-Guroff M., Lautenberger Reitz M., Kall L., Robert-Guroff M., Lautenberger Shaw G., Kong L., Weiss S., Watters D., Gallo R., B.
Shaw G., Kong L., Weiss S., Watters D., Gallo R., B.
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Shaw G., Kong L., Weiss S., Watters D., Gallo R., B.

"Viral variability and serum antibody response in infected with HIV type 1 (HTLV type IIIB).";

"Viral Res. Hum. Retroviruses 10:1143-1155(1994).
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Submitted (JUL-1994) to EMBL; U12032; AAA76668.1
                        Mulder K.E.;
                                                                                Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B., Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.; "Viral variability and serum antibody response in a laboratory worker infected with HIV type 1 (HTLV type IIIB)."; AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Envelope glycoprotein (Fragment).
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NCBI_TaxID=11676;
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NCBI_TaxID=11676;
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Coat protein; Glycoprotein; Polyprotein; Transmembrane.
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NON_TER 748 748
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diruses; Retroid viruses; Retroviridae;
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Q78243;
MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M.
Shaw G., Kong L., Weiss S., Waters
"Viral variability and serum antibo
                                                                                                                                                 Viruses; Retroid viruses; NCBI_TaxID=11676;
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chronically infected HUT-78 cellular clone.
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Verani P., Rossi G.B.;
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EMBL; Z11530; CAA77628.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Titti F.,
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A., Saggio I., Verani P., Rossi G.;
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Lautenberger J., Hahn E., Gallo R., Blattner W. y response in a laborato
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01-DEC-2001
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                                                                                                                                                                                                                                                                                                                                                                           Buckler C.
Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. Buckler White Buckler C.E., Buckler White Submitted (JUL-1989) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE=86281827; PubMed=3016298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1
Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q85582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q85582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mulder K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             molecular clone."
J. Virol. 59:284-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Envelope
                                                                                                                                                                                     J. Virol. 66:3151-3154(1992).
EMBL; M19921; AAA44992.1; -
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE=92219406; PubMed=1373204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Production of acquired
retrovirus in human and
                                                              SEQUENCE
                                                                                                 InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
                                                                                                                                                                                                                                                    gp41 resultis in loss of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Adachi A., Gendelman
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                                                                                                                                                                                                                                                    "Mutation of human immunodeficiency 
3p41 resultis in loss of killing by
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                              ymphocytes."
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PF00517; GP41; 1.
                                                                                    Coat
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                                                              protein;
854 AA;
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                                                              Glycoprotein; Polyprotein; Transmembrane
97124 MW; ABA0A1BF36D5595A CRC64;
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97.2%;
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Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 192; DE Pred. No. 2.8e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               A.J., Willey R.L., EMBL/GenBank/DDBJ
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    Score
Pred.
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No. 2.
  192;
No. 2.
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      DB 15;
.8e-15;
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                       Length 854;
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01-NOV-1996
01-NOV-1996
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01-NOV-1998
01-NOV-1998
01-DEC-2001
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CONFLICT
CONFLICT
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pfam; pF00517; GP41; 1
AIDS; Coat protest
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Salminen M.O., Koch C., Sanders-Buell E., Ehrenberg Michael N.L., Carr J.K., Burke D.S., McCutchan F.E. "Recovery of virtually full-length HIV-1 provirus of from primary virus cultures using the polymerase characteristics."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENV polyprotein.
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                                                                                                                    ENV
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Martin M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-NL4-3
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SEQUENCE FROM N.A. MEDLINE=99098984;
                                                                                                                                                                                                                                        092877
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InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            molecular clone.";
J. Virol. 59:284-291(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  retrovirus in human and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-86281827;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               636
                                                       Viruses; Retroid
NCBI_TaxID=57667;
                                                                                                  Simian-Human immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U26942; AAB60578.1;
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35; Conserv
                                                                                                                                    glycoprotein
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6 (TrEMBLrel.
1 (TrEMBLrel.
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739
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                                                                                                                                                           (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                        PRELIMINARY;
                                                                               viruses;
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    PubMed=9882298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Glycoprotein; Polyprotein;
214 H -> L (IN REF. 2)
530 A -> S (IN REF. 2)
739 G -> D (IN REF. 2)
97005 MW; FF2264B3841D122C
                                                                                                                                                                                                                                                                                                                                                                                                                                        98.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          virus type 1.
es; Retroviridae; Lentivirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01,
01,
19,
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                                                                                                                                                           08,
                                                                                 ency virus.
Retroviridae;
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Pred. No. 2
                                                                                                                                                                                                                                          PRT;
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-> S (IN REF. 2).
-> D (IN REF. 2).
FF2264B3841D1220 CRC64;
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Q74599;
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                                                                                                                                      Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases EMBL; D86068; BAA12995.1; -. InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Changes in human immunodeficiency virus type 1 envelope glycoproteins responsible for the pathogenicity of a multiply passaged simian-human immunodeficiency virus (SHIV-HXBc2).";
J. Virol. 73:976-984(1999).
                                                                                                                                                                                                   STRAIN-MCK1;
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NCBI_TaxID=11676;
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Viruses; Retroid viruses; Retroviridae;
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                                                                                                                  Pfam; PF00516; GP120; 1. Pfam; PF00517; GP41; 1.
                                                                                                                                                                                          Iwatani Y.;
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Virology 174:103-116(1990).
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"Changes in human
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Steenbeke T., Halloran M., F
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"Spectrum of Biological Properties
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                                                                                           Coat protein;
NCE 856 AA;
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Pred. No. 2.
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Pred. No. 2.8e-15;
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Q69910;
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                                                                                                                                                                                                Proc. Natl. Acad. Sci. U.S.A. 91:3348-3352(1994).
EMBL: U06740. AAA19153.1; -.
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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"Spectrum of Biological Properties
(HIV-1) Isolates.";
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Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
                                                                                                                                                            InterPro; IPR000328; Pfam; PF00517; GP41;
                                                                                                                                                                                                                                                                                                      Conley A.J., Kessler J.A., Boots L.J., Keller P.M., Shaw A.R., Emini E.A.;
                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE=94211861;
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                                                                                  5248 MW;
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Pred. No. 2.8e-15;
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Score 190; DB 15;
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AC 01-JA
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                                                                                                                                                                                                                                                                                                               recombinant gp120 subunit vaccines.";
J. Virol. 72:1552-1576(1998).

EMBL: U04814; AAC58044.1; -.

InterPro; IPRO00328; Env_GP41.

InterPro; IPR000777; Gp120.

Pfam; PF00516; Gp120; 1.

Pfam; PF00517; GP41; 1.
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Connor R.I., Korber B.T.M., Graham B.S., Hahn B.H., Ho D.D.,
Walker B.D., Neumann A.U., Vermund S.H., Mestecky J., Jackson S.,
Penamore E., Cao Y., Gao F., Kalams S., Kunstman K.J., McDonald D.,
McWilliams N., Trkola A., Moore J.P., Wolinsky S.M.;
"Immunological and virological analyses of persons infected by human immunodeficiency virus type 1 while participating in trials of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   O41556 PRELIMINARY; PRT; 841 AA.
041556;
01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Envelope glycoprotein (Fragment).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN-C17;
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                             AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
                                                                                    841 AA; 95802 MW; AAFC104893D91667 CRC64;
                                                                                                                                                                           Conservative
                                                                                                                                                                                            96.9%; Score 190; DB 15; Length 841; 97.2%; pred. No. 4.9e-15;
                                                                                                                                                                           Mismatches
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Result
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.
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196
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  262574 seqs, 29422922 residues
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/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/BCTUS_COMB.pep:*
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US-08-485-244-1
US-08-485-279B-497
US-09-082-279B-497
US-09-082-279B-633
US-09-082-279B-631
US-09-082-279B-631
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                    US-08-965-056-108
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4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
US-09-082-279B-775	US-09-082-279B-771	US-08-255-208A-1	US-09-315-304B-1486	US-09-315-304B-1470	US-09-315-304B-1469	US-09-315-304B-1161	US-09-315-304B-1121	US-09-315-304B-1076	US-09-315-304B-834	US-09-315-304B-705	US-09-315-304B-631	US-09-315-304B-630	US-09-315-304B-603	US-09-315-304B-498	US-09-315-304B-497	US-09-315-304B-15	US-08-474-349A-413
Sequence 775, App	Sequence 771, App	Sequence 1, Appli	Sequence 1486, Ap	Sequence 1470, Ap	•	•	Sequence 1121, Ap	6	•	Sequence 705, App	•	•	•	`	、	~	Sequence 413, App

### US-08-073-028-1 RESULT 1 US-08-073-028-1 Best Loc Matches Sequence 1, Application Patent No. 5464933 GENERAL INFORMATION: Query Match TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090 TELEFAX: (212) 869-8864/9741 TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/073,028 FILING DATE: 07-JUN-1993 CLASSIFICATION: 514 APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T. TOPOLOGY: unknown MOLECULE TYPE: peptide COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk ATTORNEY/AGENT INFORMATION: CORRESPONDENCE ADDRESS TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV TITLE OF INVENTION: TRANSMISSION NUMBER OF SEQUENCES: NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 ZIP: 10036 CITY: New York STATE: New York Local STRANDEDNESS: REFERENCE/DOCKET NUMBER: COUNTRY: STREET: ADDRESSEE: LENGTH: l Similarity 35; Conser amino acid Application US/08073028 1155 Avenue of the Americas 36 amino acids USA Conservative SS: single Pennie & 98.0%; 97.2%; Edmonds 7872-004-999 Score 192; DB 1; Pred. No. 9.6e-18; 1; Mismatches 0 Length 36; Indels 0; Gaps

1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36

В

1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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US-09-071-877-1
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                                                                                                                                            Sequence 1, Application US/09071877 Patent No. 6015881
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Best Local Similarity
       APPLICANT: Mader, Catherine
APPLICANT: Merutka, Gene
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS
                                                                                    APPLICANT: Kang, Myung-Chol
APPLICANT: Bray, Brian
                                                                     APPLICANT:
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MOLECULE TYPE:
D8-486-099-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: COTUZZÍ, Laura A. 742
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78;
TELECOMMUNICATION INFORMATION:
TELECHONE: (212) 790-9090
TFILEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/486,099 FILING DATE: 07-JUN-1995 CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: New York
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
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REFERENCE:
                                                                                                                           INFORMATION:
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                                                  Lichty, Maynard
Mader, Catherine
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VENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS
VENTION: B VIRUS TRANSMISSION
                                                                                                                                                                                                                                                                                                                                    Conservative
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Lambert, Dennis M.
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7872-050
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                                                                                                                                                                                                                                                                                                                                    Score 192; DB 3;
Pred. No. 9.6e-18;
1; Mismatches 0;
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 Matches
                                Query Match
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CURRENT FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 19
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                                                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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TYPE: PRT
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CURRENT APPLICATION DATA:
                                                                                TOPOLOGY: u
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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COFUZZI, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Petteway, Stephen R. APPLICANT: Langlois, Alphonse de TITLE OF INVENTION: METHODS AND TITLE OF INVENTION: OF MEMBRANK TITLE OF INVENTION: TRANSMISSIO
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                                                                                                                                                                                 TELEFAX: (212,
TELEFAX: 66141 PENNIE
TELEX: 66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                  Local
                                                                                                                STRANDEDNESS:
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TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                               NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30
                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/0 FILING DATE: 20-DEC-1994
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                  Similarity
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                                                                                                                                 amino acid
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Conservative
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                                                                                                   unknown
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                                                                              peptide
                 98.0%;
97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                  Release #1.0,
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Pred. No. 9.6e-18;
1; Mismatches 0;
                 Score 192; DB 3; Pred. No. 9.6e-18;
 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                  Version #1.30
                              Length 36;
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В

YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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                                                                                                         Sequence 1, Applic Patent No. 6054265
                                                                                                                                                                                                                                                                                      Query Match
Best Local :
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                                                                                            GENERAL
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SEQUENCE CHARACTERISTICS:
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APPLICANT: Langlois,
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
             APPLICANT:
APPLICANT:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
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CORRESPONDENCE ADDRESS:
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   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742
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STATE: New York
                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
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                                                                                            INFORMATION:
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35; Conserv
                                                                                                                            Application US/08919597
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Langlois, Alphonse J.
VENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
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(212) 869-9741/8864
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                                              Bolognesi, Dani P. Matthews, Thomas J. Wild, Carl T.
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              Barney, Shawn O.
Lambert, Dennis M.
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Petteway, Stephen R
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97.2%;
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                                                                                                                                                                                                                                                                       Mismatches
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Best Local Similarity
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            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                             APPLICANT: Petteway, Stephen R.
TITLE OF INVENTION: COMPOSITION
TITLE OF INVENTION: TRANSMISSIO
                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 787:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9990
TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 06-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
REGISTRATION NUMBER: 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                   NUMBER OF SEQUENCES:
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                                                                  ZIP:
                                                                              COUNTRY:
                                                                                                                 CITY:
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1155 Avenue
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1155 Avenue of the Americas
                                                                                USA
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PC-DOS/MS-DOS
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97.2%;
                                                                                                                                                                                                 COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS TRANSMISSION
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Pred. No. 9.6e-18;
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OPERATING SYSTEM:

CURRENT APPLICATION DATA:

SOFTWARE: PatentIn Release #1.0, Version #1.30

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SEQUENCE CHARACTERISTICS:
LENGTH: 36 amin -
Type
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INFORMATION FOR SEQ
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REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872-026
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9990
                                                              REFERENCE/DOCKET NUMBER: 78 TELECOMMUNICATION INFORMATION:
                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/485,551A
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
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ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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FILING DATE: 07-JUN-1995
                            TELEFAX:
                                                                                        NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742
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STATE: New York
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                                             TELEPHONE:
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                              : (212) 790-9090
(212) 869-9741/8864
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Langlois, Alphonse J.
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                PENNIE
ID NO:
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97.2%;
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                                                                                7872-023
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Pred. No. 9.6e-18;
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Best Local Similarity
Thes 35; Conserve
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US-08-471-913A-1
                                                                                                             US-08-471-913A-1
                                              Matches
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INFORMATION FOR SEQ ID NO:
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TOPOLOGY: unl
MOLECULE TYPE:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF MEMBRANE
TITLE OF INVENTION: FUSION-ASSOCIATED EVENTS, INCLUDING EPS'
TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                         SEQUENCE CHARACTERISTICS LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 30 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
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                                                                                                                                                      STRANDEDNESS
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                                                             Local
                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                    NAME:
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1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                        LENGTH:
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10036-2711
                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New York
                                                                                                                                                                                                                                                                                                             COruzzi, Laura A.
Coruzzi, Laura A.
707 NIMBER: 30,742
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                                                                                                                                                                                                                                                       (212) 869-9741/8864
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                                              Conservative
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                                                                                                                                                                                                                                                                     (212) 790-9090
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97.2%;
                                                           98.0%;
97.2%;
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                                                           Score 192; DB 3;
Pred. No. 9.6e-18;
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                                              Indels
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                                              Gaps
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RESULT 10 US-08-554-616-1

Sequence

Application US/08554616

Patent No.

GENERAL INFORMATION:

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                                                                                                                                                                            Patent No. 6228983
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/554,616
FILING DATE: 06-NOV-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/073,028
FILING DATE: 07-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
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CURRENT APPLICATION DATA:
                                                                  APPLICANT:
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ATTORNEY/AGENT INFORMATION:
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APPLICANT: Matthews, Thomas J.
APPLICANT: Wild, Carl T.
TITLE OF INVENTION: SYNTHETIC PER
TITLE OF INVENTION: TRANSMISSION
                                                                                                   APPLICANT:
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                   TITLE OF INVENTION:
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                                                  FITLE OF INVENTION:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (212) /50
TELEPAX: (212) 869-8864/9741
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OPERATING SYSTEM:
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STATE: New York
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TOPOLOGY: unl
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REGISTRATION NUMBER: 3
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                                                                                                                                                                                                                                                                                                                                                                                    Local
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Petteway, Stephen R.
Langlois, Alphonse J.
VENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING
VENTION: RESPIRATORY SYNCYTIAL VIRUS TRANSMISSION
EQUENCES: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                 Barney, Shawn O.
                                                                                                                                Bolognesi, Dani P. Matthews, Thomas J. Wild, Carl T.
                                                                                                 Lambert, Dennis M.
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                  Score 192; DB 4;
Pred. No. 9.6e-18;
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                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                       SOFTWARE: F
SEQ ID NO 15
LENGTH: 36
TYPE: PRT
                       Query Match
Best Local
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 15, Application US/09082279B Patent No. 6258782
                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
                                                                                                                                                                                                                                                    TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH BUTTITLE OF INVENTION: PHARMACOKINETIC PROPERTIES FILE REFERENCE: 7872-043
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
                                                                                 OTHER INFORMATION: Core polypeptide
                                                                                                                     ORGANISM: Artificial Sequence
                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: unknown MOLECULE TYPE: peptide
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
     Local Similarity
les 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
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Guthrie, Kelly
Merutka, Gene
                                                                                                                                                                                         FastSEQ for Windows Version 3.0
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     Conservative
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                                                                                                                                                                                                                                                                                             HYBRID POLYPEPTIDES WITH ENHANCED
                   98.0%;
97.2%;
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97.2%;
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Pred. No. 9.6e-18;
""" omatches 0;
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   Score 192; DB 4;
Pred. No. 9.6e-18;
1; Mismatches 0
                                 Length 36;
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   Indels
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Gaps
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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US-09-082-279B-497; Sequence 497, Application US/09082279B; Patent No. 6258782
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RESULT 15
US-09-082-279B-603
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ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Core polypeptide
US-09-082-279B-497
                                                                                                                                                                                                               ; OTHER INFORMATION: Core polypeptide US-09-082-279B-498
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; Sequence 498, Application US/09082279B

; Patent No. 6258782
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CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 498
LENGTH: 36
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Best Local Similarity
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SOFTWARE: FastSEQ for
XQ ID NO 497
LENGTH: 36
                                                                                                                                           Best Local Similarity Matches 35; Conserv
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT EILING DATE: 1998-05-20
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                                                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                        1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                     YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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Guthrie, Kelly
Merutka, Gene
Anwer, Mohmed
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Merutka, Gene
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                                                                                                                                           Conservative
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97.2%;
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97.2%;
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Pred. No. 9.6e-18;
""matches 0;
                                                                                                                                                          Score 192; DB 4;
Pred. No. 9.6e-18;
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APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 603
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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                                  QΥ
                                                                                                                                           OTHER INFORMATION: Core polypeptide US-09-082-279B-603
                                                                     Matches
                                                                                      Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 603, Application US/09082279B Patent No. 6258782
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                   / Match 98.0%;
Local Similarity 97.2%;
nes 35; Conservative
1 YTSLIHTLIEESQNQOEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION:
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Guthrie, Kelly
Merutka, Gene
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                                                                                      Score 192; DB 4;
Pred. No. 9.6e-18;
                                                                     Mismatches
                                                                                                     Length 36;
                                                                     Indels
                                                                     0;
                                                                     Gaps
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Search completed: May 16, 2003, 11:22:14
Job time : 11.1928 secs

0;

Copyright

GenCore version 5.1.4\_p5\_4578 (c) 1993 - 2003 Compugen Ltd.

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Result
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hl number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
BG
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Gapop 10.0 ,
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       10:
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12:
13:
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/cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
     Gapext 0.5
       100
                                         0.0 US-09-796-202-10

0.0 US-09-79-451-5

0.0 US-09-834-628-1

10 US-09-854-816-1

10 US-09-854-816-1

10 US-09-848-616-176

10 US-09-779-451-4

10 US-09-779-451-4

10 US-09-779-451-4

10 US-09-779-451-4

10 US-09-779-451-8

10 US-09-779-851-84

10 US-09-771-84

10 US-10-059-271-84

10 US-10-059-271-87
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US-10-116-797-1
US-09-493-346-1
    US-09-854-816-16
US-09-854-816-17
US-09-854-816-18
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sequence 176, App
Sequence 4, Appli
Sequence 2, Appli
Sequence 84, Appli
Sequence 81, Appl
Sequence 82, Appl
Sequence 82, Appl
Sequence 97, Appl
Sequence 16, Appl
Sequence 17, Appl
Sequence 17, Appl
                                                                                                                                                   Sequence 16, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 10, Appli
Sequence 5, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 108, App
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185	186	186	186	186	186	186	187	187	187	187	188	189	189	190	190	192	192	192	192	192	192	192	192	192	192	
94.4	94.9	94.9	94.9	94.9	94.9	94.9	95.4	95.4	95.4	95.4	95.9	96.4		96.9						98.0					98.0	
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US-09-854-816-50	US-10-059-271-94	US-09-854-816-42	US-09-854-816-6	US-09-854-816-41	US-09-854-816-38	US-09-854-816-109	1	-609	US-09-891-609-4	-09-854-816-	US-09-854-816-28	US-09-854-816-19	US-09-912-824-1	US-09-854-816-12	US-09-854-816-9	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1	
e 50	Sequence 94, Appl	42	9	41,		109	2	2		26,	Sequence 28, Appl	19	Sequence 1, Appli	12		55,	53 '	103	e 1,	ω.	Ф 8	ü	e 8	49,	Sequence 1, Appli	

### ALIGNMENTS

US-09-874-475-16 RESULT 1

Sequence 16, Application US/09874475 Publication No. US20020182592A1

GENERAL INFORMATION:

APPLICANT: Petropoulos, Christos APPLICANT: parkin, Neil T. APPLICANT: Whitcomb, Jeanette APPLICANT: Huang, Wei

ч

Huang, Wei

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS FILE REFERENCE: 2793/65166

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RESULT 2
US-10-116-797-1
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                                                                                                      Sequence 1, Application US/10116797 Publication No. US20030044411A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 16
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING HIV-1 INFECTION
FILE REFERENCE: 64672-A
CURRENT APPLICATION NUMBER: US/10/116,797
CURRENT FILING DATE: 2002-10-15
                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/874,475
CURRENT FILLING DATE: 2001-06-04
NUMBER OF SEO ID NOS: 16
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 36
TYPE: PRT
                                                                                                                                                                                                                                                                                                             Local Similarity
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5.
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                                                                                                                                                                                                                                                                                                                                                                               Inhibitor Peptide
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97.2%;
                                                                                                                                                                                                                                                                                                           Score 192; DB 9;
Pred. No. 1.3e-16;
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NUMBER OF SEQ ID NOS: 5
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1

ENGTH: 36

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; OTHER INFORMATION: T-20 US-09-796-202-10
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Best Local Similarity
Watches 35; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: T20 peptide
US-09-493-346-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-493-346-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/493,346
CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
Query Match
Best Local Similarity
                                                                                                                                                                               SEQ ID NO 10
LENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 10, Application US/09796202
Patent No. US20020068813A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                      APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
FILE REFERENCE: 2048/61010/JPW/SHS
CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 17 SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    equence 1, Application US/09493346 blication No. US20030082185A1 ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: 61009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1 TITLE OF INVENTION: Infection
                                                                                        NAME/KEY: PEPTIDE LOCATION: (1)..(36)
                                                                                                                              FEATURE:
                                                                                                                                               ORGANISM: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                        )9-796-202-10
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TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
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97.2%;
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97.2%;
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Pred. No. 1.3e-16;
 Score
Pred.
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Pred. No. 1.3e-16;
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 192; DB 10;
No. 1.3e-16;
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                                                                                                                                                US-09-834-628-1
                                                                                                                                                                                                                                                                                                                                 APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PEPTIDES FOR INHIBITION OF
FILE REFERENCE: 05823,0198-00000
CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Human immunodeficiency virus type 1 US-09-779-451-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
US-09-834-628-1
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APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                         Matches
                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
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APPLICANT: YU, YEON GYU
                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/09834628 Patent No. US20020119922A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 77
                                                                                                                                                               OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                              LENGTH: 36
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                                                                        Local Similarity
les 35; Conser
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les 35; Conserv
                 1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                    Score 192; DB IU;
Pred. No. 1.3e-16;
Nicmatches 0;
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Pred. No. 1.3e-16;
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US-09-854-816-108
Sequence 108, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Carches 35; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE DESCRIPTION: SEQ ID NO: 1: 19-854-816-1
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INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                          1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
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APPLICATION NUMBER: US/09/854,816
EILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
                                      TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: Linear MOLECULE TYPE: DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
                                                                                                                                                      APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
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ADDRESSEE: Genente
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Constrained Helical Peptides and Methods of
    NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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Making Same SEQUENCES: 113
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                                                                        J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
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Melissa A. Starovasnik
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97.2%;
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Pred. No. 1.3e-16;
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                                                                        ; OTHER INFORMATION: DP178c peptide US-09-848-616-176
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                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 176
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Best Local Similarity
Matches 35; Conserv
 Matches
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 176, Applic Publication No. US20 GENERAL INFORMATION:
                   Best Local Similarity
                                  Query Match
                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/O:
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                        APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Sebbel, Peter APPLICANT: Dunant, Nicolas
                                                                                                                                               LENGTH: 37
TYPE: PRT
                                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 108:
SEQUENCE CHARACTERISTICS:
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FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
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ADDRESSEE: Genentech, Inc.
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                                                                                                                                                                                                                                                                                                                                Bachmann, Martin
Tissot, Alain
                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09848616
5. US20030054010A1
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 Conservative
                   98.0%;
97.2%;
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97.2%;
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Pred. No. 1.3e-16;
                   Score 192; DB 9;
Pred. No. 1.4e-16;
 Mismatches
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                                  Length 37;
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Gaps
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1 YTSLIHTLIEESQNOOEKNEQELLELDKWASLWNWF 36

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2 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37

Charloteaux, Benoit

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RESULT 12
US-10-040-349B-2
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US-09-779-451-41
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Sequence 2, Application US/10040349B Publication No. US20030082521A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                    SEQ ID NO 4
LENGTH: 56
TYPE: PRT
ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 4, Application US/09779451 Patent No. US20020094521A1
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Best Local Similarity
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APPLICANT: Allaway, Garaham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US 60/235,901 PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
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SOFTWARE: PatentIn vei
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PRIOR APPLICATION NUMBER: US 60/181,543
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LENGTH: 46
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                                                                                                                                                                                                                        Local Similarity 97.1 pes 35; Conservative
                                                                                                                                                             1 YTSLIHTLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                          YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 51
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97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for Detection of Viral Fusion Inhibitors
                                                                                                                                                                                                                                          Score 192; DB 10;
Pred. No. 2.1e-16;
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Pred. No. 1.7e-16;
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RESULT 14
US-10-059-271-81
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                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 84
LENGTH: 221
TYPE: PRT
                                   GENERAL INFORMATION:
                                                      Sequence 81, Application US/10059271 Publication No. US20030082208A1
                                                                                                                                                                                                                                      Best Local Similarity Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 84, Application US/10059271
Publication No. US20030082208A1
                                                                                                                                                                                                                                                                       Query Match
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Matches 35; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 2
 APPLICANT: REPKE, HEINRICH APPLICANT: BUDDE, ECKHARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: DE 101 06 295 PRIOR FILING DATE: 2001-02-02 NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: REPKE, HEINRICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/040,349B CURRENT FILING DATE: 2002-07-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: ALBRE-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIDEFUNT TOUR 100 POLYPEPTIDE Inducing Antibodies Neutralizing HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: Peptide
LOCATION: (1)..(177)
OTHER INFORMATION: polypeptide derived from gp41 LAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 177
TYPE: PRT
ORGANISM: Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                               131 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
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BUDDE, ECKHARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BUDDE, ECKHARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chevalier,
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97.2%;
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Pred. No. 9.2e-16;
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Pred. No. 7.2e-16;
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APPLICANT:

NICOLAUS, STEFAN

OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND

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Query Match
Best Local Similarity
""" tohes 35; Conserve
Search completed: May 16, 2003, 12:10:25 Job time : 15.759 secs
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US-10-059-271-82
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                                                                                                                                                                                                                                                                         APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
FILE REFERENCE: ALBRE-22
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: PATENTINE: 254
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 82, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 35; Conserv
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LENGTH: 232
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                           FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide
-10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22 CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31 PRIOR APPLICATION NUMBER: DE 101 06 295 PRIOR FILING DATE: 2001-02-02 NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: REPKE, HEINRICH APPLICANT: BUDDE, ECKHARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.1
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                                                                  Conservative
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97.2%;
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97.2%;
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Pred. No. 1.1e-15;
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Pred. No. 9.7e-16;
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195
1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF
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147.792 Million cell updates/sec
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AAR198398
AAW1783912
AAW122912
AAY22805
AAY31955
AAY31955
AAX531974
AAB52688
AAB52688
                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                 icted by chance to have a e of the result being printed, score distribution.
HIV-1 derived pept
SEQ ID NO. 108 fro
SEQ ID NO. 1 from
Synthetic peptide
HIV-1 LAI 9941 T-2
T20/DP178 peptide
T20/DP178 peptide
                                                                                                                                                                                                                                         Description
                                                                                                                                                                             DP-178 derived fro DP178 corresponds
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45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15 .	14	13	12	11
193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193.	193	193	193	193	193
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1 core	l core polyp	1 DP178/107-	1 DP178,	1 DP178/107-	orescein-labe	al DP178/107-	al DP178/107-1	al DP178/107	al DP178/107	l DP178/107	al DP17	fl protein	al DP178/107-	1 DF	al DP178/107-	tin-labelled H	-1 gp41 peptid	gp4	Ϊ.	transmembra	viral envelop	e polypeptide	Core polypeptide f	e polypeptide	polypeptide	e polypeptide	polypeptide	e polypeptide	e polypeptide	e polypeptide	e polypeptide	e polypeptide	e polypeptide	HIV-1 isolate LAI

### ALIGNMENTS

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AAR64364
ID AAR6
RESULT 1
                                                                                                                                                                                                                 human immunodeficiency virus; transmembrane protein; gp41; alpha helix; leucine zipper; DP-185.
         07-JUN-1993;
                                                                                                                                                                                                                                         antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI;
                                                                                                                                                                                                                                                                                                           AAR64364;
                                                                                                                                                                                                                                                                                                                                AAR64364 standard; Peptide; 36 AA.
                              07-JUN-1994;
                                                    22-DEC-1994.
                                                                        WO9428920-A
                                                                                                                   Modified-site
                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                              DP-178 derived from HIV-1 isolate LAI has antiviral activity
                                                                                                                                                                                                                                                                                     24 - AUG - 1995
                                                                                                                                                               Modified-site
                                                                                                                                                                                                                                                                                    (first entry)
         93US-0073028
                              94WO-US05739
                                                                                                                   38
                                                                                                                                                    /note=
                                                                                                        /note=
                                                                                                                                                                          Location/Qualifiers
                                                                                                                           "optionally has an amino, acetyl, 9-fluorenylmethoxy-carbonyl, hydrophobic macromolecular carrier gp. attached"
                                                                                           "optionally has a carboxyl, amido, hydrophobic or macromolecular carrier gp. attached"
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RESULT 2
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    forms a putative alpha helix at the C-terminal end of the 9p41 of forms a putative alpha helix at the C-terminal end of the 9p41 ectodomain, and complexes with Dp-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein-protein interactions, and possess anti-varal activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission to uninfected cells, and can also be used as type and/or subtype specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Barney SO,
Petteway S
                                                                                                                                                                                                                                                                                                                                            Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                               DP178 corresponds to residues 638-673 of HIV-1(LAI) gp41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnostic tools.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV transmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Computer search generated synthetic peptides - are inhibitors of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1995-036105/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYDU-) UNIV DUKE
                                   Inhibiting viral transmission, isolated peptide recognised by sequence search motif
                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                          17-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR98398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR98398 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR64364 is designated DP-178, and corresponds to amino acids
                                                                                          WPI; 1996-309517/31.
                                                                                                                 Barney SO, I
Matthews TJ,
                                                                                                                                                                                               06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                      20-DEC-1995;
                                                                                                                                                                                                                                                                 27-JUN-1996
                                                                                                                                                        (TRIM-) TRIMERIS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 132; 182pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bolognesi
, Wild CT;
                                                                                                                   Bolognesi DP,
, Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                              95US-0470896
94US-0360107
                                                                                                                                                                                                                                      95WO-US16733
                                                                                                                                                                                                                                                                                                                                           hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.0%;
97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lambert
                                                                                                                   Lambert DM, Wild CT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 193; DB 16;
Pred. No. 7.6e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A
                                                  e.g. HIV or RSV, to a cell - using an ALLMOTI5, 107x178x4 or PLZIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ŋ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matthews IJ;
                                                                                                                                  Langlois
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Disclosure;

Fig 1; 471pp; English

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1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36

YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

36

В

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RESULT 3
AAW17011
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                                                                                                                                                                                                                                                                                                     PT
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Best Local :
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                Query Match
Best Local
   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The sequences given in AAR98398-408 represent peptides which exhibit antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide structures. These peptides are recognised by the ALLMOTIS, 107x178x4 and PLZIP search motifs. These peptides may be used to inhibit the transmission of a virus, pref. HIV, influenza virus, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV; SIV: human; simian immunodeficiency virus; glycoprotein 41; transmembrane; antiviral; DP-178; DP-107; vaccine; inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW17011 standard;
                                                                                                   reverse transcriptase, viral protease, cytokine, glycosylation or viral mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting viral replication or inhibiting transmission. They may also be used in vaccines for protecting against HIV infection.
                                                                                                                                                         AAW17011 represents a peptide designated DP-178, a peptide derived from HIV type 1 glycoprotein 41 (gp41) transmembrane protein. The peptide corresponds to residues 638-673 of gp41. DP-178 and its derivatives are used in combination with a therapeutic agent, e.g. a reverse transcriptase, viral protease, cytokine, glycosylation or viral
                                                                                                                                                                                                                                                                    Claim 2; Figure 1; 84pp; English.
                                                                                                                                                                                                                                                                                                         Compans. contg. DP-178 or DP-107 in combination with other therapeutic agent - useful for treatment of HIV infection, esp. inhibiting replication or transmission of HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9640191-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus type 1 LAI isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV-1 derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW17011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hepatitis B virus, to a cell.
                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-099886/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             replication;
                                                                                                                                                                                                                                                                                                                                                                                                                                                (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-DEC-1996
                                                                                                                                                                                                                                                                                                     inhibiting replication or transmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \vdash
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35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                 RM,
                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36 AA;
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   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 Lambert DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95US-0481957.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peptide;
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                  99.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36
Score 193; DB 18;
Pred. No. 7.6e-17;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 193; DB 17;
Pred. No. 7.6e-17;
L; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AΑ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV infection
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   0;
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                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
   Indels
                                        36;
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Matches
                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HTV). Specifically, AXY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY22880, AAY22880, AAY22880 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce oconstrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain
                                                                                                                                                                                                                                                                                                                             constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention of infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
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06-NOV-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY22912 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 233-234; 279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-NOV-1997;
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                    of "floppy"
                                                                                                                        Similarity 97.: 35; Conservative
                                                                                                                                                                                                                                              36 AA;
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96US-0743698.
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                                                                                                                                                                                                                                                                                                          peptides or proteins.
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                                                                                                                                                     99.0%;
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                                                                                                                     Score 193; DB 19;
Pred. No. 7.6e-17;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AΑ
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Local Similarity nes 35; Conser

Conservative

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Gaps

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1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36

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RESULT 5
AAY22805
ID AAY2
XX
AC AAY2
AC AAY2
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DT 19-A
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HIV;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus CC (HTV). Specifically, AAY22810-Y22910 are derived from gp41 proteins CC (HTV). Specifically, AAY22810-Y22910 are derived from gp41 proteins CC of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and CC AAY22903 represent consensus sequences of various sections of the gp41 CC protein). Sequences derived from the peptides are used to produce CC constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapetide in which both terminal CC amino acids have a side-chain that includes agroup able to form an amide CC constrained helical peptides are used to treat or prevent HIV CC infection, especially as vaccines that generate antibodies that CC prevent viral membrane fusion or infectivity. Vaccines may contain CC constrained helical peptides derived from several different strains of CC constrained helical peptides are in affinity purification CC constrained helical peptides are in affinity purification coust of ligands (particularly where complete binding protein is not readily available of replacements for protein a immunociabulian contents.
               Query Match
Best Local S
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                                                                                                           available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for synthetic antibody clones from phage display libraries, of forms of "floppy" peptides or proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Braisted A, Judice JK, Wells JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV. gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
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                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 143-144; 279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1998-286866/25
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06-NOV-1996;
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                                                                           AA;
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96US-0743698.
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                 99.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36
Score 193; DB 19;
Pred. No. 7.6e-17;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Phelan JC,
                                     Length 36
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RESULT 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence represents an N- and C-terminal modified peptide, designated T-20 (or DP-178), corresponding to amino acids 638-673 of the transmembrane protein gp41 of HIV-1 LAI isolate.

The invention relates to methods for the synthesis of peptides, in particular T-20 and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T-20 or T-20-like peptide. The invention collists to yield the final T-20 or T-20-like peptide. The invention act as intermediates in the synthesis of peptides of interest (e.g. T-20), and to particular groups of peptide fragments. The invention of the synthesis of the peptide fragments which act as intermediates in the synthesis of the peptide fragments. The method allows for the large scale, economical production of high
                                                               Query Match
Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 102; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kang M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic peptide T-20 (DP-178)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY31955;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T-20 like peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Methods of peptide synthesis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TRIM-) TRIMERIS INC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human immunodeficiency virus type 1.
                                                                                                                                 Sequence
 سر
                               1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                 35; Conser
                                                                                                                                                                peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bray B,
                                                                                                                                 36 AA;
                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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98US-0071877.
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36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "C-terminal amide"
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                                                                               99.0%;
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                                                               Score 193; DB 20;
Pred. No. 7.6e-17;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mader C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   particularly used to produce T-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Merutka
                               36
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                                                                                                Length
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RESULT 7 AAY31974

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                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                  Matches
Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response chemoattractant.
                                                                                                                                 AAB52655;
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01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY31974 standard; Peptide;
                                                               T20/DP178 peptide fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Methods of peptide synthesis,
T-20 like peptides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-591038/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9948513-A1
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                                                                                                  23-FEB-2001
                                                                                                                                                                 AAB52655 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                 1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                  Similarity
35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page
                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В,
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98US-0071877
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                                                                 #33.
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                                                                                                                                                                                                                                                                                                                  Score 193; DB 20;
Pred. No. 7.6e-17;
1; Mismatches 0
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                                                                                                                                                                                                                                                                                                                                                 Length 36;
                                                                                                                                                                                                                                                                                                                   Indels
                 up-regulation;
                                                                                                                                                                                                                                                                                                                   0;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               helical segment of the ectodomain of HIV-1 protein gp41 T20/Dp178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes T20/Dp178 is interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
WPI; 2000-656493/63
                                                                                                                                                             Human immunodeficiency virus type
                                                                                                                                                                                                Antiinflammatory; T20/DP178; formyl peptide receptor famil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 12; Page 24; 148pp; English.
                    Wang
                                                                   05-MAY-1999;
                                                                                         05-MAY-2000;
                                                                                                                  09-NOV-2000
                                                                                                                                        WO200066622-A1
                                                                                                                                                                                     chemoattractant
                                                                                                                                                                                                                                                                                 AAB52688
                                                                                                                                                                                                                                                                                                       AAB52688 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                 T20/DP178 peptide fragment #66.
                                                                                                                                                                                                                                                          23-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     partial-length
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                                                                                                                                                                                                                                                                                                                                                                                       1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                          US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                    . Oppenheim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           is used
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                          2000WO-US12371
                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of peptide agents with a sequence corresponding T20/DP178 or T21/DP107 formyl peptide receptor formed to modulate inflammation.
                                                                                                                                                                                              ry; T20/DP178; gp41 ectodomain; HIV-1 fusion;
receptor family; FPR; inflammatory response up-regulation;
                                                                   99US-0132686.
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                                                                                                                                                                                                                                                                                                       Peptide;
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                    'n
                                                                                                                                                                                                                                                          entry)
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                       Score 193;
Pred. No. 7
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                    Gong W,
                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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0;
                    Gao
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                    J,
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                    Murphy PM;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               corresponding to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Murphy
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RESULT AAB5281
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Best Local 9
        interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an
                                                                     The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  helical segment of the ectodomain of HIV-1 protein gp41 T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP17 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an
                                                                                                                                                                                   Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formy1 peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                     Claim 14;
                                                                                                                                                                                                                                                                                                                                          05-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chemoattractant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T20/DP178 peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 12; Page 25; 148pp; English
                                                                                                                                                                                  antagonist
                                                                                                                                                                                                                                                                           Wang JM,
                                                                                                                                                                                                                                                                                                          (USSH)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is a peptide fragment of T20/DP178. T20/DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammatory response in
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18
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                                                                                                                                                                                                                                               2000-656493/63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunodeficiency virus type 1.
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                                                                                                                                                                                                                                                                                                          US DEPT HEALTH & HUMAN
                                                                                                                                                 Page 40; 148pp;
                                                                                                                                                                                                                                                                           Oppenheim JJ,
                                                                                                                                                                                  is used to modulate
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to modulate inflammation
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                                                                                                                                                   English
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l; Mismatches
                                                                                                                                                                                  inflammation
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                                                                                                                                                                                                                                                                                                          SERVICES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inflammatory response up-regulation;
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7.6e-17;
nes 0;
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                                                                                                                                                                                                                                                                           Murphy PM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 36;
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                                              of HIV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or mimics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or commit the coiled coil solution structure of the N-helical domain could the heptad repeat region), or can correspond or mimic the C-helical comain (the transmembrane-proximal amphipathic alpha-helical segment), cor the gp41 core 6-helix bundle, which is formed by the interaction could the N- and C-helical domains of three gp41 proteins. The peptides can be administered either singly or as a combination (particularly a combination of N-helical and C-helical peptides), and can be combination of N-helical and C-helical peptides), and can be combination of N-helical and C-helical peptides) and can be alternately linked together to form a peptide which mimics the core 6-helix bundle. Administration of the peptide(s) generates a correct of the lical pentide which mimics the core 6-helix bundle. Administration of fantibodical administration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
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                                                                                                                                                                                                                                                                                                                      claimed peptides derived from the C-helical domain of the gp41 envelope glycoprotein from a variety of HIV-1 isolates. The invention relates to raising a neutralising antibody response to a broad spectrum
                                                                                                                                                                                                                                                                                                                                                                            Sequences AAB14532-B14534 and AAB14569-B14602 represent specifically
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Raising neutralizing antibody response to human immunodeficiency virus, comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wild CT,
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humoral response, with the production of antibodies against gp41 structures involved in viral entry. As these portions of gp41 are conserved, such antibodies may be effective against a broad range
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-465959/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-JAN-1999; 99US-0115404
07-JAN-2000; 2000US-0480336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    envelope glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HIV-1; gp41 C-helical domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1 isolate LAI gp41 C-helical domain residues
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    transmembrane-proximal amphipathic alpha-helical segment;
6-helix bundle; viral entry inhibition; immunogenic;
body; humoral response; broad spectrum vaccine; anti-HIV;
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35; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                 Page 12;
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97.2%;
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No. 7.6e-17;
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Best Local
                                                                                                                                                                                                            The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIV strains and isolates. The peptide compositions may be administered as a prophylactic or therapeutic vaccine to generate antibodies which reduce or inhibit the ability of HIV to infect uninfected cells. A composition comprising polycional or monocional antibodies can be administered to reduce HIV infection of uninfected cells. Antibodies raised against entry-relevant gp41 structures may also be used therapeutically and as tools to further elucidate the mechanism of HIV cell entry.
                            interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences that can be used in the invention.
                                                                                                                     polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                          Disclosure; Page 21; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                  comprises enhancer
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               those indicated also comprise enhancer fragments at
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Guthrie KI,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lambert
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factor; cytokine; viral;
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                                                                                                                                interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences those indicated also comprise enhancer fragments at terminal (
                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 22; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon; colony stimulating factor; hormone; angiogenic factor.
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                                                                                                                    form hybrid polypeptides.
YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF
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7.6e-17;
1es 0;
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AAY89136 ID AAY8 XX

AAY89136 standard;

peptide;

36

RESULT 15

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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36

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RESULT 14
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                  Query Match
Best Local S
                                                                                                                                                                                            function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for the invention can be used for
                                                                                                                                                                                                                                                                                                                                              The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A new hybrid polypeptide with enhanced pharmacokinetic properties
                                                                       Sequence
                                                                                                                        inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAV88651-v90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                             pharmacokinetic properties such as increasing the half-life of any core
                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 30; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            comprises enhancer sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-136792/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           colony stimulating factor; hormone; angiogenic factor
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                                                                                                                                                                                                                                                                                         polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAY-1998;
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                                                                                                           hybrid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Guthrie KI,
                                                                       36 AA;
 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US11219
                                                                                                       polypeptides.
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                  99.0%;
97.2%;
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                  Score 193; DB 21; Pred. No. 7.6e-17;
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 Mismatches
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Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                           The invention relates to hybrid polypeptides comprising enhancer peptide. sequence linked to core polypeptides. The enhancer polypeptides are derived from various retrovarial envelope (gp41) protein sequences, especially from HIV-1 HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor, estimalistic factor borrows.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon; colony stimulating factor; hormone; anglogenic factor.
                                                                                                                                                                                                              interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-990055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 30; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A new hybrid polypeptide with enhanced pharmacokinetic properties comprises enhancer sequence \boldsymbol{\cdot}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-136792/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barney S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TRIM-) TRIMERIS INC.
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                                                                                                                                                           Sequence
                                                                                                                                                                                                  and form hybrid polypeptides.
1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Guthrie KI,
                                                                                                                                                           36 AA;
                                                                                 Conservative
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                                                                                                   99.0%;
97.2%;
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                                                                                 Score 193; DB Pred. No. 7.6e 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anwer MK,
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hes 0;
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Search completed: May 16, 2003, 11:12:06
Job time: 32.4578 secs

Copyright

GenCore version 5.1.4\_p5\_4578 (c) 1993 - 2003 Compugen Ltd.

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Perfect score:
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C; Superfamily: type E retrovirus

99.0%;

Length 851;

EMBL:211530; NID:g60192; PIDN:CAA77628.1; PID:g60199 E retrovirus env polyprotein

A; Molecule type: mRNA A; Residues: 1-851 <CAR> A; Reference number: \$33979
A; Accession: \$33985
A; Status: preliminary

A; Cross-references:

RESULT 1  \$33985 env polyprotein - human immunodeficiency virus tc;Species: human immunodeficiency virus type 1, C;Species: 19-Mar-1997 #sequence_revision 19-Mar-11 C;Accession: \$33985 R;Carlini, F. R;Carlini, F. Submitted to the EMBL Data Library, November 190		45 87 4	87.	88	88	88	117	134		147	153	158	158	161	162	. 165	30 166 8	
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Тур НІ НІ Э97	ALIGNMENTS	\$30452	S30448	VCLJG5	803068	VCLJG3 ·	A53034	\$49197	S21990	A44963	VCLJSI	JT0954	JU0266	VCLJH4	B41621	T01672	VCLJKB '	
e 1 V-1 #text_change 26-Aug-1999		protein -		polyprotei	env protein - huma	env polyprotein -				env polyprotein pr	env polyprotein pr	envelope polyprote	envelope polyprote	env polyprotein -	env polyprotein D	envelope polyprote	env polyprotein pr	

env protein - 'human immunodeficiency virus type 1 (;Species: human immunodeficiency virus type 1, HIV-1 (;Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 31-Oct-1997 (;Accession: S13288 R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, A.; Idler, | Nature 348, 69-73, 1990 A;Title: HIV-1 tropism for mononuclear phagocytes can be determined by regin A;Reference number: S13288; MUID:91043044; PMID:2172833 A;Accession: S13288 Query Match Best Local Similarity "~+~hes 35; Conserv A;Status: preliminary A;Molecule type: DNA A;Residues: 1-854 <OBR> C;Superfamily: type E re RESULT S13288 Оy ₽ В Qy Matches Query Match Best Local 636 633 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 2 1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 671 l Similarity 35; Conser Conservative Conservative retrovirus env polyprotein 99.0%; mononuclear phagocytes can be determined by regions of gpl; MUID:91043044; PMID:2172833 Score 193; DB 2; Pred. No. 4.1e-15; 1; Mismatches 0 Score 193; DB 2; Pred. No. 4.1e-15; 1; Mismatches 0 36 668 36 0; 0; Length 854; Indels Indels 0; 0; Idler, K.; Gaps Gaps 0; 0; Zack,

VCLJKX

RESULT VCLJH3

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RESULT 5
C41621
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C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency;
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-516/Product: exterior membrane glycoprotein #status predicted <EXT>
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C; Date: 17-May-1985 #sequence_revision
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C;Species: human in
N; Alternate
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Title: Nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Wain-Hobson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
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A; Residues: 1-856 < RAT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: A03975
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                                                                                                                                                                                                                                                                ;517-861/Product: transmembrane glycoprotein #status predicted <TMM>
;88.136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,41
;616,621,630,642,679,755,821/Binding site: carbohydrate (Asn) (covalent) #status predi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -30/Domain: signal sequence #status predicted <SIG>
-511/Product: exterior membrane glycoprotein #status predicted <EXT>
-511/Product: transmembrane glycoprotein #status predicted <TMM>
-2-856/Product: transmembrane glycoprotein #status predicted <TMM>
-886,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,400
-5611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status predicted covalent)
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                                                                                                                                                                                                                              Query Match
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Keywords: AIDS; caps
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                 polyprotein
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                                                                                                             643 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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35; Conserv
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 polyprotein
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97.2%;
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    human immunodeficiency virus

                   immunodeficiency
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MUID:85099333; PMID
                                                                                                                                                                                                                                                                                                                                                                                                                                             NID:g326417; PIDN:AAB59751.1;
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Pred. No. 4.1e-15;
                                                                                                                                                                                                              Pred.
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J.;
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                 virus
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                   type
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Gallo, R.C
                   1 (fragment)
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 N;Contains: C;Species: h
C;Species: h
C;Date: 30-S
                                                     VCLJ3W env polyprotein precursor -
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human

coat protein gp120; coat protein gp41
human immunodeficiency virus type 1, HIV
Sep-1988 #sequence\_revision 30-Sep-1988

HIV-1

#text\_change

07-Nov-1997

human immunodeficiency virus

type

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(isolate

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C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency;
F;1-251/Product: coat protein gp10 (fragment) #status predicted <GP1>
F;252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>
F;424-443/Domain: transmembrane #status predicted <TMN>
F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding
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C; Date:
                                                                                                                                                                                                                                      C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immur
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-511/Product: exterior membrane glycoprotein #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                           A;Reference number: A93355; MUID:85111157; PMID:298210 A;Accession: A03974
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Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
A;Title: Evolution of human immunodeficiency virus type
A;Reference number: A41621; MUID:92107924; PMID:1763038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Accession: C41621
R; Burger, H.; Weiser
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                                                                                                                                                                                                                                                                                                                                                        C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Note: host Homo sapiens (man)
C; Date: 17-May-1985 #sequence_revision
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                                                                                                                                                                                                                                                                                                                                  A;Gene: env
                                                                                                                                                                                                                                                                                                                                                                           A; Cross-references: GB: K02083;
                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-856 < MUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R; Muesing, M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: A03974
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                                                                                                                                                                      ;512-856/Product: transmembrane glycoprotein #status predicted <TMM>;88,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,361,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                               Query Match
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Best Local
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  869
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                    1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNW
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YTSLIHSLIEESQNQQEKNEQELLELDKWANLWNW
                                                                                      l Similarity
33; Conser
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33; Conser
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                                                                                    Conservative
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                                                                                                      94.48;
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                                                                                      2;
                                                                                                         Score 184; DB 1;
Pred. No. 4.9e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 184;
Pred. No. 2.
                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PMID: 2982104
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672
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                                                                                                                             Length 856
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envelope protein gp120/gp41 - human immunodeficiency virus type 1 C.Species: human immunodeficiency virus type 1 A.Variety: isolate 27B C.Jate: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000 C.Accession: S21994; S70421 R.Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W. submitted to the BMBL Data Library, July 1991 A.Description: Distinct populations of HIV-1 in blood and cerebrospinal fluit A.Reference number: S21990
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C;Superfamil
C;Keywords:
F;1-29/Domai
A; Accession: S21994
A; Molecule type: DN
A; Residues: 1-357 <
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R:Gurgo, C.; Guo, H.G.; Fran
Virology 164, 531-536, 1988
A;Title: Envelope sequences
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A;Molecule type: DNA
A;Residues: 1-861 <GUR>
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A; Reference number:
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C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 16-Feb-1997
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R; Starcich, B.R.; Hahn,
Cell 45, 637-648, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene:
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Best Local
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7,129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,340,356,362,386,39
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91.7%;
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Pred. No. 4.
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Pred. No. 4.9e-14;
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.9e-14;
0;
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                                               A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-357 <ST2>
                                                                                                                             R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency
A;Reference number: S70417; MUID:92144209; PMID:1736940
          A;Cross-references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1; A;Experimental source: patient 27L
                                                                                                          A; Reference number: A; Accession: S70422
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Data

Library,

July 1991

PID:g1067129

virus

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blood and

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envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 27L)
C;Species: human immunodeficiency virus type 1, HTV-1
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999
C;Accession: S70422; S21996
                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: DNA
A;Residues: 1-222, 'X',224-358 <STE2>
A;Cross-references: EMBE:X61359; NID:g60182; PIDN:CAA43630.1; PID:g60183
C;Superfamily: type E retrovirus env polyprotein
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A:Title: Distinct populations of human immunodeficiency virus A:Reference number: S70417; MUID:92144209; PMID:1736940
A:Reference number: S70417; MUID:92144209; PMID:1736940
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A;Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C:Species: human immunodeficiency virus type 1, HIV-1
A:Variety: isolate 28
C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
C:Accession: S21998; S70425
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A; Cross-references: EMBL: X61355;
C; Superfamily: type E retrovirus
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A; Residues: 1-358 <STE1>
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Best Local :
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32; Conserv
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immunodeficiency virus type 1, HIV-1
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Pred. No. 4
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4; Mismatches
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Pred. No. 4.1e-14;
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109; PMID:1736940
                                                                                                                                                                                                                                                                                                              4.2e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIDN:CAA43630.1;
                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36
                                                                                                                                                                                                                                                                                                                                  Length 358
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                                                                                                                                                                                                                                                                                      Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 type 1 in blood and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        type 1 in
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                                                                                                                                                                                                                                                                                      0;
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                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                   0;
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F;510-855/Product: transmembrane glycoprotein #status predicted <TMM>F;87,129,140,158,184,190,200,244,265,292,298,304,334,341,358,364,388,394,400,408,445,F;610,624,636,815/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                       C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; F:1-30/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                           C; Superfamily: ty
C; Keywords: AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                C; Genetics:
                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-855 <SAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-859 <GUR>
C; Genetics:
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                                                                                                                                                                                                A;Gene: env
                                                                                                                                                                                                                             A;Cross-references: GB:K02007; NID:g328658; PIDN:AAB59882.1; PID:g328666
                                                                                                                                                                                                                                                                               A; Reference number: A04003;
A; Accession: A03976
                                                                                                                                                                                                                                                                                                                    A; Title: Nucleotide sequence and
                                                                                                                                                                                                                                                                                                                                    R; Sanchez-Pescador, R.; Pov
Science 227, 484-492, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                          env polyprotein precursor - human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VCLJA2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Note: host Homo sapiens (man)
C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 16-Feb-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N; Alternate names:
C; Species: human i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                           N;Alternate names: coat polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VCLJMN
                                                                                                                       31-509/Product: exterior membrane glycoprotein #status predicted
                  Query Match
Best Local
   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Accession: A28922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gurgo, C.; Guo, H.G.; Fran
plogy 164, 531-536, 1988
Atle: Envelope sequences
Reference number: A28922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Accession: A28922
                                                                                                                                                                                                                                                                                                                                                                                                                       Species: human immunodeficiency virus type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                      ccession: A03976
                                                                                                                                                                                                                                                                                                                                                                                       hte: host Homo sapiens (man)
hte: 17-May-1985 #sequence_r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 642
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YTSLIYSLLEKSQTQQEKNEQELLELDKWASLWNWF 677
                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                          type E retrovirus env polyprotein OS; capsid protein; coat protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    precursor - human
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   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                       #sequence_revision 17-May-1985 #text_change 16-Jul-1999
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                                                                                                                                                                                                                                                                                                                                                  Power, M.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Franchini, G.; Aldovini, A.; Collalti,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92.3%;
                  91.3%;
88.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                91.8%;
                                                                                                                                                                                                                                                                                                 we and expression of an AIDS-associated retrovirus (ARV-2).
MUID:85090453; PMID:2578227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of two new United States HIV-1 MUID:88219542; PMID:3369091
 Ψ
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                Score 178; DB 1;
Pred. No. 2.5e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 179; DB 1;
Pred. No. 1.9e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
   Mismatches
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                                                                                                                                                                                                                                                                                                                                                    Barr, P.J.; Steimer, K.S.; Stempien, M.M.; Brown-Sl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 type
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                                                                                                                                                                                                                                                                                                                                                                                                                         HIV-1
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                                Length 855;
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 Indels
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                                                                                                                                                        immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (isolate ARV-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (isolate MN)
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0;
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                                                                                                                       <EXT>
Gaps
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Search completed: May 16, Job time: 13.1446 secs

2003, 11:25:12

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env protein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #tc
C;Accession: S13289
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submitted to the EMBL Data
submitted to the EMBL 216673
밁
                                  20
                                                                                                                                          C; Superfamily:
                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-847 <OBR>
                                                                                                                                                                                                              A;Title: HIV-1 tropism for mononuclear phagocytes can be determined A;Reference number: S13288; MUID:91043044; PMID:2172833 A;Accession: S13289
                                                                                                                                                                                                                                                                      R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, Nature 348, 69-73, 1990
                                                                                                                                                                                                                                                                                                                                                                              RESULT
S13289
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C;Superfamily: type E retrovirus env polyprotein
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A;Status: preliminary; translated
A;Molecule type: DNA
A;Residues: 1-847 <PAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Species: human imm
C; Date: 16-Jul-1999
C; Accession: T09448
                                                                                                                                                                                             A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              envelope glycoprotein - human immunodeficiency virus type 1 (strain JRFL) C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-Nov-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вb
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                                                                     Matches
                                                                                     Query Match
Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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                                                                                     Local Similarity
                  1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
32; Conserv
                                                                                                                                        type E retrovirus env polyprotein
                                                                     Conservative
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                                                                                     90.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Akashi, T.; O'Brìen, W.A.;
Library, July 1996
                                                                    ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        from
                                                                                     Score 177; DB 2;
Pred. No. 3.3e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 177; DB 2; Pred. No. 3.3e-13;
                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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664
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                                                                                                                                                                                                                                                                                                                         #text_change
                                                                                                    Length 847;
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                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                     A.; Idler, K.;
                                                                                                                                                                                                                                                                                                                         31-Oct-1997
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                                                                    Gaps
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Minimum DB
Maximum DB
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No.
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Maximum Match 100%
Listing first 45 s
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
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      I number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq length:
seq length:
    protein search, using sw model
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Query
Match Length
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Gapop 10.0 , Gapext 0.5
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195
1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF
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21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Egycoprotein (GP120); Transmembrane glycoprotein ENV.
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                                           "Assignment of intrachain disulfide potential glycosylation sites of the immunodeficiency virus envelope glyc Chinese hamster ovary cells.";
J. Biol. Chem. 25:10373-10382(1990)
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MEDLINE-85111123; PubMed=2578615;

Rather L., Haseltine W., Patarca R., Livak K.J., Starcich

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Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A.,

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AIDS; Coat protein; Po
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ENV\_HV1B1 ID ENV\_I AC P033: DT 21-JI DT 21-JI DT 15-JI DE Enve

ENV\_HV1B1 P03375;

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13-AUG-1987 (Rel. 05, 0
15-JUL-1999 (Rel. 38, 1
30-MAY-2000 (Rel. 39, 1
Envelope polyprotein Gl
glycoprotein (GP120);
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Submitted (APR-1997) to the EMBL/GenBank/DDBJ databases
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NCBI_TaxID=11706;
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K03455; ENV$HXB2.
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Polyprotein;
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GP160 precursor [Contains:
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es; Retroviridae; Lentivirus.
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01-FEB-1996 (Rel. 33, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
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EXTERIOR MEMBRANE GLYCOPROTEIN.
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Q70626;
15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein (GP160 precursor [Contains: Exterior membrane glycoprotein (GP41)].
                                                           This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by ancentities requires a license agreement (See http://www.isb-sor send an email to license@isb-sib.ch).
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GlycoSuiteDB;
InterPro; IPR
                                                                                                                                                                                            Reitz M.S. Jr., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.M., Shaw G.M., Kong L.I., Weiss S.H., Waters D., Gallo R.C., Blattner W.; "Viral variability and serum antibody response in a laboratory worker infected with HIV type I (HTLV type IIIB)."; AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                             EMBL; U12055;
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Retroviridae; Lentivirus.
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Pfam; PF00516; GP120;
Pfam; PF00517; GP41;
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Signal.
                                                     ENV_HVIBR STANDARD: PRT: 861 AA.

P03377;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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Viruses; Retroid
NCBI_TaxID=11686;
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                           Human immunodeficiency
Viruses; Retroid viruse
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                                                                                                                                                                                                                                                                                    Similarity 97. 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                        AA;
                             viruses;
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Retroviridae; Lentivirus.
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"Cloning a
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01-FEB-1991 (Rel. 17, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: glycoprotein (GP120); Transmembrane glycoproteir
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Pfam; PF00517; GP41;
AIDS; Coat protein;
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MEDLINE=90317877; PubMed=1695254;
MEDLINE=90317877; PubMed=1695254;
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NCBI_TaxID-11704;
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IPR000777; GP120.
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       Polyprotein; Glycoprotein; Transmembrane
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"Human immunodeficiency virus type
"epplication, and cytopathicity are
the viral genome.";
J. Virol. 64:4016-4020(1990).
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                                                                                                                                             Pfam;
AIDS;
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                                                                                                                                                          InterPro: IPR000328; Env_GP41.
InterPro; IPR00077; GP120.
Pfam; PF00516; GP170; 1.
Pfam; PF00517; GP41; 1.
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HIV; M38427; ENV$SF33.
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NCBI_TaxID=11690;
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Last annotation update)
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21-JUL-1986 (Rel. 01, Tast sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Ferromagnetic (GP120); Transmembrane glycoprotein
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Nature 313:450-458(1985).
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HIV; K02083; ENV$PV22.
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InterPro; IPR000777; GP120.
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01-JUL-1993
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SEQUENCE
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Signal.
SIGNAL
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InterPro; IPR000777; GP120.
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IEDLINE-6621807; PubMed-2423250;

IEDLINE-6621807; PubMed-2423250;

Itarcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,

Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., V.

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ein GP160 precursor (Contains:
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, Wong-Staal F.;
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ID ENV_HV1S1
AC P19550;
DT 01-FEB-1991
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01-FEB-1991 (Rel. 17, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update
Envelope polyprotein GP160 precursor [Contat glycoprotein (GP120); Transmembrane glycoprotein
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                                                                                                                                                                                                                                                         AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              macrophage tropism, cytopathogenicity,
J. Virol. 64:4390-4398(1990).
                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=90347835; PubMed=231
Cheng-Mayer C., Quiroga M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1 (SF162 isolate)
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11691;
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                                                                                                                                                                                                                                                                                                                                             EMBL; M65024;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                    InterPro;
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PF00517; GP41;
Coat protein; I
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   Polyprotein;
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No. 9.
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"In MISCELLANEOUS: THE MN JSOTATE TO PARTERIA."
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P05877;
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01-NOV-1988
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                  Pfam;
Pfam;
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modified and this statement is not removed.
                                           InterPro; IPR000328; Env_GP41
InterPro; IPR000777; GP120.
                                                            PIR; A28922; VCLJMN.
HIV; M17449; ENV$MN.
                                                                               EMBL; M17449; AAA44857.1;
                                                                                                                                          between
                                                                                                                                                    This
                                                                                                                                                                                                                                               Viruses; Retroid
NCBI_TaxID=11696;
                                                                                                                                                                                                                                                                   Human immunodeficiency
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Ol.NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation updat
Envelope polyprotein GP160 precursor [Conta
glycoprotein (GP120); Transmembrane glycopr
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an email to license@isb-sib.ch).
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RESULT 14
ENV_HV1W2
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MEDLINE-86235450; PubMed=3012778;

MEDLINE-86235450; PubMed=3012778;

Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R., Markham P.D.

Salahuddin S.Z., Wong-Staal F., Gallo R.C., Parks E.S., Parks

Salahuddin S.Z., Wong-Staal F., Gallo R.C., Parks E.S., Parks

"Genetic variation in HTLV-III/LAV over time in patients with
                                                                                                                  01-NOV-1988 (Rel. 09, Created)
01-NOV-1988 (Rel. 09, Last sequence
15-JUL-1999 (Rel. 38, Last annotatio
Envelope polyprotein GP160 precursor
glycoprotein (GP120); Transmembrane
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es; Retroviridae; Lentivirus
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-!- MISCELLANEOUS: ISOLATES WMJ1, WMJ2, AND BLOOD SAMPLES SEQUENTIALLY TAKEN FROM A WAS PERINATALLY INFECTED BY HER MOTHER.
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HIV; M12507; ENV$WMJ2.
InterPro: IPR000328; ENV_GP41.
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InterPro; IPRO00777; GP120.
Pfam; PF00516; GP120; 1.
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AIDS; Coat protein; Polyprotei
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Levy J.A., Dina D., Luciw P.A.;
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21-JUL-1986 (Rel. 01, Last sequence update)
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Envelope polyprotein GP160 precursor [Contains:
glycoprotein (GP120); Transmembrane glycoprotein
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## SUMMARIES

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187         95.9         616         15         O993B0         O993b0 human           187         95.9         618         15         O993B2         O993b2 human           187         95.9         757         15         O90722         O993b2 human           186         95.9         848         15         O95990         O993b2 human           186         95.4         858         15         O80867         O99217 human           186         95.4         858         15         O80867         O8465 human           186         95.4         858         15         O980610         O99610 simiar           186         95.4         858         15         O992610         O99610 simiar           186         95.4         858         15         O99386         O992610 simiar           186         95.4         858         15         O99386         O992610 simiar           186         94.9         854         15         O78025         O9927         human           186         94.9         854         15         O78225         O78225         human           186         94.4         441         15         O41556	95.9 616 15 0993B0 0993B0 95.9 616 15 0993B0 95.9 616 15 0993B2 0993B0 15 0993B0 95.9 757 15 090722 099722 099722 195.9 848 15 026990 063990 063990 195.4 858 15 0260865 02665 026666 026666 02666 02666 02666 02666 02666 02666 02666 02666 02666 02666 026	45	44	43	42	41	40	39	38	37	36	35 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
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	human human	Q8UL73	Q8UL77	Q8UL79	Q811080	Q8UL85	080T88	Q8UL90	Q8UL70	041539	Q72993	Q8Q852	056110	Q8Q851	Q77368	041556	080023	Q69910	Q03805	Q78225	Q03806	Q9YXR6	Q9E610	280865	Q8Q867	Q9E1R7	Q69990	Q9Q722	Q993B2	Q993B0
	immun immun															huma	huma	huma					co.			huma				

## ALIGNMENTS

Qy Db		SQ	KW KW	DR	DR.	DR RL	RT	RT	RA	RA	RX C	RP	RN	ox c	200	GN	DE	DT	T.C	AC AC	ID	RE Q9
1 YTSLIHSLLEESQNQOEKNEQELLELDKWASLWNWF 36 	Query Match 99.0%; Score 193; DB 15; Length 645; Best Local Similarity 97.2%; Pred. No. 2:4e-15; Matches 35; Conservative 1; Mismatches 0; Indels 0; Gaps 0;	TEADSHERDFADE.  NON_TER 1 1  SEQUENCE 645 AA; 72485 MW; B076514BE93362EC CRC64;	Pfam; PF00517; GP41; 1. AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;	InterPro; IPR000777; GP120. Pfam; PF00516; GP120; 1.	InterPro; IPR000328; Env_GP41.	Proc. Natl. Acad. Sci. U.S.A. 98:4587-4592(2001).		"Localization of CD4+ T cell epitope hotspots to exposed strands of HIV envelope alycoprotein suggests structural influences on antigen		Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M.,	STRAIN=1UU/; MEDLINE=21192672; PubMed=11287644;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=11676;	Human immunodeficiency virus type I. Viruses: Refroid viruses: Refroviridae: Lentivirus	env.		(TrEMBLrel. 19,	01-JUN-2001 (Trembirel. 17, Lest sequence update).	(Trewer to 17	Q993A6 PRELIMINARY; PRT; 645 AA.	RESULT 1 Q993A6

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Q70606;
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Reitz M., Hall L., Robert-Guroff M., Lautenberger
Shaw G., Kong L., Weiss S., Waters D., Gallo R., E
Shaw G., Kong L., Weiss S., Waters D., Gallo R., E
"Viral variability and serum antibody response in
Infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
NON_TER 747
747
SEQUENCE 747 AA; 84250 MW; 732E836A52245F14 CRC64;
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Viruses; Retroid viruses; Retroviridae;
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                                                                                                                               Reitz M., Hall L., Robert-Gurott M., Laulen Leyer
Shaw G., Kong L., Weiss S., Waters D., Gallo R., B
"Viral variability and serum antibody response in
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (JUL-1994) to the EMBL/GenBank/DDBJ EMBL; U12034; AAA76669.1; -.
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                                                Mulder K.E.;
                                                                         STRAIN-LW881;
                                                                                                SEQUENCE FROM
                                                                                                                                                                                                                                          MEDLINE=95127297: PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J.,
                                                                                                                                                                                                                                                                                                  STRAIN-
                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                     duman immunodeficiency virus type 1.
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U12032; AAA76668.
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35; Conser
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(TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
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                         EMBL/GenBank/DDBJ databases
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ID Q706
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Best Local
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                                                  Q70605;
Q70605;
01-NOV-1996
01-NOV-1996
01-DEC-2001
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Q70604;
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pfam; pf00517; GP41; 1
AIDS: Coat protein; Glycoprotein; Polyprotein;
NON_TER 748 748
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                      InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Viruses; Retroid viruses; NCBI_TaxID=11676;
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Viruses; Retroid
NCBI_TaxID=11676;
                                 ENV
                                                                                                                                                                                                                                                                                                                  Submitted (JUL-1994) to the EMBL/GenBank/DDBJ EMBL; U12030; AAA76666.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-LW851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Envelope
                     Human immunodeficiency virus type 1
                                         Envelope glycoprotein
                                                                                                                                                                                                                                                              AIDS;
                                                                                                                                                                                                                                                                                                                                        Mulder K.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                    STRAIN=LW851;
                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=95127297; PubMed=7826699.
                                                                                                                                                     638
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                        1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                     YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                             Coat protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity 97.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            glycoprotein
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IPR000777; GP120.
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                                                                                                                                                                                                                                        752 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                  (TrEMBLrel. 01, Created)
(TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 19, Last annotation updat
                                                                                                                                                                                               Conservative
                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                    752
           viruses;
                                                                                                                                                                                                                                                      ; Glycoprotein; Polyprotein; Transmembrane 752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84224 MW;
                                                                                                                                                                                                                                          84894 MW;
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97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Fragment).
                                          (Fragment).
           Retroviridae; Lentivirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Retroviridae;
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; Pred. No. 2.8e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last annotation
                                                                                                                                                                                                        Score 193;
Pred. No. 2
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                                                                                                                                                                                                                                          CRC64;
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                                                                     Query Match
Best Local :
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Best Local
                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                         MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger Shaw G., Kong L., Weiss S., Watters D., Gallo R., B
"Viral variability and serum antibody response in infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q70608;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [1]
SEQUENCE
                                                                                                                                                                                                      Submitted (JUL-1994) to the EMBL/GenBank/DDBJ EMBL; U12035; AAA76670.1; ... IPR000328; ENV_GP41. InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (JUL-1994) to the EMBL/GenBank/DDBJ EMBL; U12031; AAA7667.1; -
INTERPOOS : IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blatt "Viral variability and serum antibody response in a la infected with HIV type 1 (HTLV type IIIB) ", AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                        SEQUENCE
                                                                                                                                                            AIDS;
                                                                                                                                                                                                                                                                           Mulder K.E.;
                                                                                                                                                                                                                                                                                               STRAIN=LW87-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q70608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane. NON_TER 752 752 SEQUENCE 752 AA; 84894 MW; 8B30AE894013B45A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=LW852
                                                                                                                                        NON_TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            638
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                                                                                                                                        Coat protein;
ER 752
                                                                                                                                                                      PF00516; GP120; 1
PF00517; GP41; 1.
   35; Conser
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                                                                                                                      752 AA;
                                                      Conservative
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                                                                                                                                          ; Glycoprotein; Polyprotein; 752
                                                                                                                        84780 MW;
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97.2%;
                                                                        99.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  virus type 1.
es; Retroviridae;
                                                                      . 28;
                                                   Score 193; DB Pred. No. 2.8e 1; Mismatches
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Pred. No. 2.8e-15;
1; Mismatches 0;
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                                                                                                                                                     Transmembrane
                                                                                                                      CRC64;
                                                                                                                                                                                                                                                                                                                                                                                             r J., Hahn I
Blattner W.
                                                                                   Length 752;
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                                                                                                                                                                                                                                                                                                                                                                               a laboratory worker
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Q89797
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Q78243
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Best Local S
Matches 35
                                                                                                                                                                                                                                      Q89797
Q89797;
01-NOV-1996
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SEQUENCE FROM N.A.
SHOUTH F., Federico M., Butto S., Or
Mitti F., Federico I., Verani P.,
Chara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Sequence analysis of HIV-1 proviral DNA from chronically infected HUT-78 cellular clone."; J. Viral Diseases 1:40-55(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q78243;
01-NOV-1996
MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M.,
Shaw G., Kong L., Weiss S., Waters D
"Viral variability and serum antibod:
                                                                                                                                                                          ENV
                                                                                                                                                                                                          01-NOV-1996
01-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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Pfam; PF00517; GP41;
AIDS; Coat protein; G
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01-DEC-2001
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                                                                     STRAIN-LW90-2
                                                                                   SEQUENCE FROM
                                                                                                                     NCBI_TaxID=11676;
                                                                                                                                      Viruses;
                                                                                                                                                                                      Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Borsetti A., Saggio I., Verar
"Variability of HIV-1 virus:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Biological and molecular characterization of producer and non producer clones from HUT-78 infected with a patient HIV isolate AIDS Res. Hum. Retroviruses 5:385-396(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-89352106; PubMed-2765297;
Federico M., Titti F., Butto S., Orecchia
Macchi B., Mangiano N., Verani P., Rossi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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                                                                                                                                                      Human immunodeficiency
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InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     productive clone."
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Verani P., Rossi G.B.;
                                                                                                                                                                                                                                                                                                                                                               633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nt. J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        638 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                                                                                                                                                                                                                                                                           YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                           YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J. Immunopharmacol. 3:17-23(1990)
z11530; CAA77628.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                               35;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                 munodeficiency virus type 1.
Retroid viruses; Retroviridae;
                                                                                                                                                                                    glycoprotein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein; 851 AA;
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                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Federic M.,
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                                                                                   N.A.
Robert-Guroff M., Lautenberger J., Hahr
Weiss S., Waters D., Gallo R., Blattner
and serum antibody response in a labora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glycoprotein; Polyprotein; Transmembrane 96630 MW; 1A3767B9B7E98027 CRC64;
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Mismatches ^
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Q85582;
Q1-NOV-1996
Q1-NOV-1996
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InterPro;
                                                             SEQUENCE
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                                                                                                                                                                                                                                                 gp41 resultis in loss
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MEDLINE=86281827; PubMed=3016298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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                                                                               InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprote
                                                                                                                                                                                   J. Virol. 66:3151-3154(19)
EMBL; M19921; AAA44992.1;
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                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE=92219406;
                                                                                                                                                                                                                                                                                                                                                                             Submitted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                             Mutation of human immunodeficiency not resultis in loss of killing by
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PF00517; GP41; 1.
Coat protein; Envelope protein; Glycoprotein;
  Similarity
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59:284-291(1986)
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IPR000777; GP120.
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854 AA;
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                                                           Glycoprotein; Polyprotein; Transmembrane. 97124 MW; ABA0A1BF36D5595A CRC64;
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nonhuman cells transfected with an i
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virus type 1 at amino acid 585 on
CD8+ A24-restricted cytotoxic T
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databases.
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AIDS; Coat protein; Glyco
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SEQUENCE FROM N.A. MEDLINE=99098984;
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J. Virol. 59:284-291(1986).
EMBL; U26942; AAB60578.1; -
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Viruses; Retroid viruses; Retroviridae;
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Interpro; IPR000777; GP120.
Pfam; PF00516; GP120; 1
Pfam; PF00517; GP120; 1
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmeml SEQUENCE 856 AA; 97151 MW; C50BE0388FB73659 CRC64;
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InterPro; IPR000228; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; AIDS; Coat Both AA; 97287 MW; 238042A234C5668
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"Spectrum of Biological Properties
(HIV-1) Isolates.";
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Viruses; Retroid viruses; Retroviridae;
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Steenbeke T., Halloran M., 1
Sodroski J.G.;
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Sodroski J.G.;
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein
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01-NOV-1998
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01-NOV-1996
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                            Pfam; PF00516; GP120
Pfam; PF00517; GP41;
AIDS; Coat proto:
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Q74090;
                                                                                                                                                immunotoxin-resistant variant T cell line.";
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ
EMBL; AF070521; AAC28452.1; -
InterPro; IPR000338; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                        Fang H., Pincus S.H.;
"Spontaneous activation of human immunodeficiency
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infected T cells.";
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Virology 174:103-116(1990).
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"Unique insertion sequence
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    protein;
854 AA;
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856 AA;
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Glycoprotein;
96885 MW; 08
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.n; Polyprotein; Transmembrane 0808f3AED27C693B CRC64;
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X MEDLINE-9601815, pubMed-7474132;
XA Duensing T.D., Fang H., Dorward D.W., Pincus S.H.;
XI Duensing T.D., Fang H., Dorward D.W., Pincus S.H.;
XI Processing of the envelope glycoprotein gp160 in immunotoxin-
xi resistant cell lines chronically infected with human immunodeficiency
xi rulus type 1.";
XI Virol. 69:7122-7131(1995).
XI J. Virol. 69:7122-7131(1995).
XI J. Wirol. 69:7122-7131(1995).
XI RMBL; L42371; AAA96326.1; -.
XI RMBL; L42371; AAA96326.1; -.
XI Interpro; IPR000328; Env_GP41.
XI Interpro; IPR000777; Gp120.
XI Pifam; PP00516; Gp120; 1.
XI Pifam; PP00516; Gp120; 1.
XI Pifam; PP00517; Gp41. 1.
XI Pifam; PP00517; Gp41. 1.
XI Pifam; PP00517; Gp41. 1.
XI Pifam; PP00516; Gp120; 1.
XI AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
XI SEQUENCE 854 AA; 97199 MW; 5B9512216533E256 CRC64;
earch completed: May 16, 2003, 11:19:50 time: 27.3124 secs
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Matches 34; Conserv
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Best Local Similarity 94.4%;
Matches 34; Conservative 2
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Q78705;
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11676;
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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Pred. No. 9.8e-15;
2; Mismatches 0;
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103.919 Million cell updates/sec
     262574 seqs,
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US-08-485-264A-1
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US-09-082-279B-498
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631, App
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1076, Ap
11121, Ap
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4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
US-09-082-279B-775	US-09-082-279B-771	US-08-255-208A-1	US-09-315-304B-1486	US-09-315-304B-1470	US-09-315-304B-1469	US-09-315-304B-1161	US-09-315-304B-1121	US-09-315-304B-1076	US-09-315-304B-834	US-09-315-304B-705	US-09-315-304B-631	US-09-315-304B-630	US-09-315-304B-603	US-09-315-304B-498	US-09-315-304B-497	US-09-315-304B-15	US-08-474-349A-413
Sequence 775, App	Sequence 771, App	Sequence 1, Appli	Sequence 1486, Ap		Sequence 1469, Ap		Sequence 1121, Ap	57	`	•	`	Sequence 630, App.	•	•	٠.		Sequence 413, App

# ALIGNMENTS

RESULT 1 US-08-073-028-1

Sequence 1, Application US/08073028 Patent No. 5464933

GENERAL INFORMATION:

APPLICANT:

Bolognesi,

Dani P.

NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:

ADDRESSEE:

1155 Avenue of the Americas

Pennie & Edmonds

APPLICANT: Matthews, Thomas J.
APPLICANT: Wild, Carl T.
TITLE OF INVENTION: SYMPHETIC PEPTIDE INHIBITORS
TITLE OF INVENTION: TRANSMISSION

OF.

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; STRANDEDNESS:
; TOPOLOGY: unk;
; MOLECULE TYPE: H
US-08-073-028-1
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COUNTRI.

ZIP: 10036

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

COMPUTER: PC-DOS/MS-DOS

PATENTING SYSTEM: PC-DOS/MS-DOS

PATENTIN PATENTIN Release #1.0, Version #1
                                 Query Match
Best Local S
Matches 35
                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: COTUZZÍ, LAURA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78:
                                                                                                                                                                          TYPE:
                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1993 CLASSIFICATION: 514
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CITY: New York
STATE: New York
1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                               Similarity
                                                                                                                                                                        amino acid
                                  Conservative
                                                                                                                                         unknown
                                                                                                                     peptide
                                                                                                                                                      single
                                                 99.0%;
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                                 Score 193; DB 1;
Pred. No. 2.3e-17;
1; Mismatches 0
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                                                                  Length 36;
                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEPHONE: (212) 790-9090
APPLICANT: Lichty, Maynard APPLICANT: Mader, Catherine APPLICANT: Merutka, Gene TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS FILE REFERENCE: 7872-050
                                                                           APPLICANT: Kang, Myung-Chol
APPLICANT: Bray, Brian
APPLICANT: Lichty, Maynard
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                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: 08-486-099-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/486,099
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: CCURT! LANGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: New York
STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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TVENTION: COMPOSITIONS FOR INHIBITION OF
TVENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS
TVENTION: B VIRUS TRANSMISSION
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Lambert, Dennis M.
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                                                                                                                                                                                                                                                                                                                                                                                                                                              unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                          peptide
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97.28;
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                                                                                                                                                                                                                                                                                                                             Score 193; Db 5, -
Pred. No. 2.3e-17;
"'matches 0;
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1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36

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; ORGANISM: Human immunodeficiency virus US-09-071-877-1
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Best Local Similarity
"~+~hes 35; Conserve
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                                                               US-08-360-107A-1
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             Query Match
Best Local S
 Matches
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CURRENT FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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                                                                                                                                                          TELEFAX: (212) 869-974
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
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                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COruzzi, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090 TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                               MOLECULE TYPE:
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                                                                                                                                                                                                                                                              NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/0 FILING DATE: 20-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                             STRANDEDNESS
                                                                                                                                TYPE:
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                                                                                              TOPOLOGY:
                                                                                                                                                LENGTH:
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               Similarity
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                                                                                                                                amino acid
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                                                                                                                                                  36 amino acids
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Barney, Shawn O.
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Matthews, Thomas
                                                                                                unknown
 Conservative
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                                                                             peptide
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97.2%;
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Thomas J.
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Pred. No. 2.3e-17;
1; Mismatches (
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               Score 193; DB 3;
Pred. No. 2.3e-17;
Mismatches
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Best Local :
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                                                                                                                                 Sequence
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                                                                                                                   Patent No.
                                                                                                   GENERAL INFORMATION:
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APPLICÁNT:
 APPLICANT:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/484,223B
FILING DATE: 07-UN-1995
CLASSIFICATION: 435
CLASSIFICATION: 435
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APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF
TITLE OF INVENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
TITLE OF INVENTION: TRANSMISSION
                                  APPLICANT:
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STATE: New York
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                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
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REGISTRATION NUMBER: 30,742
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10036-2711
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                                               Bolognesi, Dani P. Matthews, Thomas J. Wild, Carl T.
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                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                         unknown
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                               Barney, Shawn O.
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Petteway, Stephen
               Lambert, Dennis M.
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                                                                                                                                                                                                                                                                                                    Score 193; DB 3; Pred. No. 2.3e-17;
                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                   Length 36;
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                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
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Best Local Similarity 9/...
""+rhes 35; Conservative
                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/08475668A Patent No. 6060065
COUNIN.
ZIP: 10036-2/11
COMPUTER READABLE FORM:
COMPUTER: Floppy disk
MEDIUM TYPE: Floppy disk
TOWNSTER: IBM PC compatible
TOWNSTER: TYPEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/919,597
                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie &
                                                                                                                                                                                                                                  TITLE OF INVENTION:
TITLE OF INVENTION:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 06-JUN-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION: METHODS AND
TITLE OF INVENTION: OF MEMBRABE
TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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                                                                                                                                            CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE
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                                                                                                                             STATE:
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10036-2711
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                                                                                                                                                                                                                                                                                Petteway,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.0%;
                                                                                                                                                                                                                              COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS TRANSMISSION
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                                                                                                                                                                                                                                                                                    Stephen R.
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SOFTWARE:

PatentIn Release #1.0, Version #1.30

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ZIP: 10036-2711
ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: PLOPPY disk

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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                              REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION:
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                                                                                             TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: New York
STATE: New York
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                    66141 PENNIE
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                                                                                             (212) 790-9090
(212) 869-9741/8864
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Langlois, Alphonse J.
Langlois, METHODS FOR INHIBITION OF MEMBRANE
VENTION: FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS
VENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Barney, Shawn O.
Lambert, Dennis M.
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Matthews, Thomas
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97.2%;
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Thomas J.
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Pred. No. 2.3e-17;
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Best Local Similarity
Matches 35; Conserv
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                                                                       Query Match
Best Local 9
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TOPOLOGY: unknown
MOLECULE TYPE: peptide
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NAME: COLUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,913A
FILING DATE: 07-UN-1995
CLASSIFICATION: 435
CLASSIFICATION: 435
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                                                                                                                                   TOPOLOGY: un MOLECULE TYPE:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS
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1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                          Similarity
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Matthews, Thomas
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                                                            Conservative
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                                                                                                                                                   unknown
                                                                                                                                                                                                                                                                   (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pennie & Edmonds LLP
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alphonse J
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                                                                                                                                                                                                                                                                                                 7872-030
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                                                                          Score 193;
Pred. No. 2.
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                                                              Mismatches
                                                                            DB 3;
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                                                                                           Length 36
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RESULT 10 US-08-554-616-1

Patent No. 6133418

GENERAL INFORMATION:

Sequence

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Application US/08554616

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US-08-485-264A-1
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                                                                                                                                                                                                                Patent No. 6228983
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                                                                                                                                                                                             GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
APPLICANT: Petteway, Stephen R.
APPLICANT: Langidois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF
TITLE OF INVENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING
TITLE OF INVENTION: RESPIRATORY SYNCYTIAL VIRUS TRANSMISSION
NUMBER OF SEQUENCES: 232
                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: COTUZZI, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
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APPLICANT: Matthews, Thomas J.
APPLICANT: Wild, Carl T.
TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV
TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 07-JUN-1993 ATTORNEY/AGENT INFORMATION:
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ADDRESSEE: Pennie & Edmonds
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                                                                                                                                            APPLICANT:
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ZIP: 10036
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35; Conservative
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                                                                                                       Barney, Shawn O.
Lambert, Dennis M.
                                                                                                                                          Matthews, Thomas J. Wild, Carl T.
                                                                                                                                                                             Bolognesi, Dani P.
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97.2%;
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Pred. No. 2.3e-17;
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                                                               ; OTHER INFORMATION: Core polypeptide US-09-082-279B-15
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                                                                                                                          ; SOFTWARE: F; SEQ ID NO 15; LENGTH: 36; TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                    sequence 15, Application US/09082279B
Patent No. 6258782
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                Best Local Similarity
                             Query Match
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CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
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APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
                                                                                                                                                                                                                                       FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: unknown MOLECULE TYPE: peptide
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COMPUTER READABLE FORM:
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STREET: New York
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FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
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OPERATING SYSTEM:
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mes 35; Conserv
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                                                                                                                                                                         FastSEQ for Windows Version 3.0
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Merutka, Gene
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                99.0%;
97.2%;
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97.2%;
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    Score 193; Db .,
No. 2.3e-17;
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Pred. No. 2.3e-17;
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Indels
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US-09-082-279B-498
; Sequence 498, Application US/09082279B
; Patent No. 6258782
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: Sequence 497, Application US/09082279B
: Patent No. 6258782
RESULT 15
US-09-082-279B-603
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; OTHER INFORMATION: Core polypeptide
US-09-082-279B-497
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; OTHER INFORMATION: Core polypeptide
US-09-082-2798-498
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEO ID NOS: 1515
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 498
LENGTH: 36
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Best Local Similarity 97.2%;
Matches 35; Conservative
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Best Local Similarity
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CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
EQ ID NO 497
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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TYPE: PRT
ORGANISM: Artificial Sequence
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Merutka, Gene
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Merutka, Gene
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Pred. No. 2.3e-17;
""" wismatches 0;
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Pred. No. 2.3e-17;
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CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FASTSEQ FOR Windows Version 3.0
SEQ ID NO 603
SEQ ID NO 603
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                            Query Match
Best Local Similarity 97.2
Matches 35; Conservative
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                    1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
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Merutka, Gene
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                                                                                         99.0%;
97.2%;
                                                                          Score 193; DB 4;
Pred. No. 2.3e-17;
1; Mismatches (
                                                                                                            Length 36;
                                                                            Indels
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                                                                            Gaps
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Search completed: May 16, 2003, 11:22:14 Job time: 10.1928 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           I number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                               n DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                               length: 0
length: 2000000000
      4:
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6:
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9:
10:
11:
12:
13:
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195
1 YTSLIHSLLEESONOO!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           362588 seqs, 96450795 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       May 16, 2003, 11:20:00; search time 15.759 seconds
                                                                                                                                                                                                                                                                                                                  Published_Applications_AA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF
                                                                                /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/JS07_FUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/JS08_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/JS09_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/JS09_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                  /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
                                                                                                                                                                          // Cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
// Cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*
/cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

19	18	17	16	15	14	13	12	11	10	9	8	7	6	<sub>5</sub>	4	w	2	<b>-</b>	No.	J
193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	Score	
99.0	99.0	99.0	99.0		99.0	99.0				99.0						99.0	99.0	99.0	Match Length	
268	268	268	256	254	232	221	177	56	46	37	36	36	36	36	36	36	36	36	Length	
10	10	10	9	ဖ	9	9	9	10	10	9	10	10	10	10	10	9	9	9	DB	
US-09-854-816-18	US-09-854-816-17	US-09-854-816-16	US-10-059-271-97	US-10-059-271-82	US-10-059-271-81	US-10-059-271-84	US-10-040-349B-2	US-09-779-451-4	US-09-779-451-41	US-09-848-616-176	US-09-854-816-108	US-09-854-816-1	US-09-834-628-1	US-09-779-451-5	US-09-796-202-10	US-09-493-346-1	US-10-116-797-1	US-09-874-475-16	ID .	
18,	Sequence 17, Appl	Sequence 16, Appl	Sequence 97, Appl	Sequence 82, Appl	Sequence 81, Appl	Ξ.	Sequence 2, Appli	Sequence 4, Appli		۳,	Sequence 108, App	1,	Sequence 1, Appli	Sequence 5, Appli	Sequence 10, Appl	Sequence 1, Appli	Sequence 1, Appli	Sequence 16, Appl	Description	

45	44	43	42	41	40	39	38	37	36	<u>3</u> 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
180	180	180	181	181	181	181	183	184	184	184	185	186	187	190	190	193	193	193	193	193	193	193	193	193	193
92.3	92.3	92.3	92.8	92.8	92.8	92.8	93.8	94.4	94.4	94.4	94.9	95.4	95.9	97.4	97.4	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
268	267	46	847	646	619	268	269	269	268	233	268	269	1231	268	36	1186	1101	861	856	853	519	391	345	345	344
10	10	10	10	10	10	10	10	10	10	10	10	10	9	10	10	9	9	9	10	9	10	9	10	9	œ
US-09-854-816-41	-816-	US-09-854-816-109	US-09-476-242-2	-609-	US-09-891-609-4	US-09-854-816-26	US-09-854-816-46	US-09-854-816-12	US-09-854-816-9	US-09-854-816-50	US-09-854-816-13	US-09-854-816-28	US-10-059-271-94	US-09-854-816-19	US-09-912-824-1	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1
41,	38, 7	Sequence 109, App	2,		4,		Sequence 46, Appl	12,		50,	13,		,	19,		`		103,	e 1,	ω,	Sequence 8, Appli		Sequence 8, Appli		Sequence I, Appli

### ALIGNMENTS

RESULT 1 US-09-874-475-16

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US-10-116-797-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Fusion Inhibitor Peptide US-09-874-475-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 16
LENGTH: 36
TYPE: PRT
                                      GENERAL INFORMATION:
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING HIV-1 INFECTION
FILE REFERENCE: 64672-A
                                                                                                                                                   Sequence 1, Application US/10116797 Publication No. US20030044411A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 16, Application US/09874475 Publication No. US20020182592A1 GENERAL INFORMATION:
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Best Local
                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Whitcomb, Jeanette
APPLICANT: Huang, Wei
APPLICANT: Huang, Wei
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE
TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS
FILE REFERENCE: 2793/65166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: US/09/874,475
CURRENT FILING DATE: 2001-06-04
NUMBER OF SEQ ID NOS: 16
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Petropoulos, Christos J. APPLICANT: Parkin, Neil T.
CURRENT APPLICATION NUMBER: US/10/116,797 CURRENT FILING DATE: 2002-10-15
                                                                                                                                                                                                                                                                                                                                                            Local Similarity 97.28; es 35; Conservation
                                                                                                                                                                                                                                                                             1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
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Pred. No. 1e-16;
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US-10-116-797-1
                                                 ; NAME/KEY: PEPTIDE
LOCATION: (1)..(36)
; OTHER INFORMATION: T-20
US-09-796-202-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: Description of Artificial Sequence: T20 peptide US-09-493-346-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/493,346
CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 5
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
LENGTH: 36
TYPE: PRT
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Best Local Similarity 97.2
Conservative
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Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
Query Match
Best Local Similarity
                                                                                                                                                                                                                                        APPLICANT: Dragic, Tatjana APPLICANT: Olson, William TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION FILE REFERENCE: 2048/61010/JPW/SHS CURRENT APPLICATION NUMBER: US/09/796,202 CURRENT FILING DATE: 2001-02-28
                                                                                                                                                 NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.0
SEQ ID NO 10
LENGTH: 36
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1 TITLE OF INVENTION: Infection FILE REFERENCE: 61009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          quence 1, Application US/09493346 blication No. US20030082185A1
                                                                                                                                                                                                                                                                                                                                                          equence 10, Application US/09796202
atent No. US20020068813A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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                                                                                                                                     ORGANISM: unknown
                                                                                                                                                                                                                                                                                                                                                                                                9-796-202-10
                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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97.2%;
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97
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Pred. No. 1e-16;
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Pred. No. 1e-16;
   Score 193; DB 10;
Pred. No. le-16;
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                   Length 36;
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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-779-451-5
В
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US-09-834-628-1
                                                                                                                                                           US-09-834-628-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/09834628 Patent No. US20020119922A1
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Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Wild, Carl T.
APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
TITLE OF TRVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
FILE REFERENCE: 1900.0300003
FILE REFERENCE: 1900.030003
FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR PRIOR PRIOR PRIOR DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                            Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: YU, YEON GYU
APPLICANT: XIM, KEY-SUK
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PREPTIDES FOR INHIBITION OF HIV INFECTION
FILE REFERENCE: 05823.0198-00000
FULL REFERENCE: 05823.0198-00000
CURRENT APPLICATION NUMBER: U5/09/834,628
CURRENT FILING DATE: 2000-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                               LENGTH: 36
TYPE: PRT
                                                                                                                                                                             OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
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                          YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
  YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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97.2%;
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97.2%;
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Pred. No. le-16;
                                                                                                   Score 193; DB 1
Pred. No. 1e-16;
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RESULT 7 US-09-854-816-1

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                                                                                                                                                                                                                                                                 RESULT 8
                                                                                                                                                                               Sequence 108, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      )9-854-816-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                         1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: Linear MOLECULE TYPE: DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: -Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                         TITLE OF INVENTION:
                                                                                                                                                          APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                            YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 1 DNA Way
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                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
                                                                         J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                   J. Kevin Judice
Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Amino Acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       James A. Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                      99.0%;
                                     Constrained Helical Peptides and Methods of
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                Making Same
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Pred. No. le-16;
1; Mismatches
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; OTHER INFORMATION: DP178c peptide US-09-848-616-176
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                                     Matches
                                                                       Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 176, Publication No.
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Best Local Similarity
                                   Best Local Similarity Matches 35; Conserv
                                                                                                                                                                                                                                                           APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
                                                                                                                                                                                     LENGTH: 37
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Sebbel, Peter APPLICANT: Dunant, Nicolas
                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 108:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                    ORGANISM: Artificial Sequence
                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
1 YTSLIHSLLEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 36 amino acids
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Tissot, Alain
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o. US20030054010A1
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                                     Conservative
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97.2%;
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97.2%;
                                   1;
                                                     Score 193; DB 9; Length 37; Pred. No. 1e-16;
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Pred. No. 1e-16;
                                   Mismatches
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37

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US-09-779-451-41
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                                                          US-10-040-349B-2
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                                                                              RESULT 12
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Sequence 2, Application US/10040349B Publication No. US20030082521A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4, Application US/09779451 Patent No. US20020094521A1
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Best Local Similarity
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                                                                                                                                                                                                                                                Query Match
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APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 77
SOFTWARE: PatentIn version 3.0
TO ID NO 41
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PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
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SOFTWARE: PatentIn ver
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                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US.60/181,543 PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                  TYPE: PRT ORGANISM: Human immunodeficiency virus type 1
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                                                                                                                                                                                                                                                                                                                                           LENGTH: 56
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97.2%;
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Pred. No. 1.3e-16;
1; Mismatches 0
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Pred. No. 1.6e-16;
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; LUCATION: (1)..(177)
; OTHER INFORMATION: polypeptide derived from US-10-040-349B-2
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                                                                                                                      RESULT 14
US-10-059-271-81
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LENGTH: 177
TYPE: PRT
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SEQ ID NO 84
LENGTH: 221
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Best Local Similarity
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                                                                   GENERAL INFORMATION:
                                                                                  Sequence 81, Application US/10059271 Publication No. US20030082208A1
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Best Local Similarity
Matches 35; Conser
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CURRENT FILING DATE: 2002-07-09
NUMBER OF SEQ ID NOS: 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn version 3.0
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APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHAAD
APPLICANT: NICOLAUS, STEEAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Human immunodeficiency virus type
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                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
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                                                                                                                                                                                             131 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
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97.2%;
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Pred. No. 5.3e-16;
Pred. No. 5.3e-16;
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. 6.7e-16;
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     SEQUENCES
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LENGTH: 232
TYPE: PRT
ORGANISM: Artificial Sequence
PEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: peptide
US-10-059-271-81
Search completed: May 16, 2003, 12:10:26 Job time: 16.759 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
US-10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 82, Application US/10059271

Publication No. US20030082208A1

GENERAL INFORMATION:
APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING INMOBILIZED
TILE REFERENCE: ALBRE-22
FILE REFERENCE: ALBRE-22
FILE REFERENCE: ALBRE-22
FILE REFERENCE: ALBRE-22
                                                                                                                                                                 Query Match 99.0
Best Local Similarity 97.3
Matches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 99.0%;
Best Local Similarity 97.2%;
atches 35; Conservative
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PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                       OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide 10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
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                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                  LENGTH: 254
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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                                                                             99.0%;
97.2%;
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Pred. No. 7.1e-16;
1; Mismatches 0
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Pred. No. 7.8e-16;
1; Mismatches 0;
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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195
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! //cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*

2: //cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*

3: //cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
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: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
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: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
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US-09-79-451-5
US-09-834-628-1
US-09-854-816-1
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US-09-854-816-1
US-09-854-816-1
US-09-779-451-41
US-09-779-451-41
US-10-059-271-84
US-10-059-271-81
US-10-059-271-81
US-10-059-271-97
US-09-854-816-16
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US-10-116-797-1
US-09-493-346-1
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Sequence 16, Appl
Sequence 1, Appli
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Sequence 10, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 176, Appli
Sequence 176, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 84, Appli
Sequence 84, Appli
Sequence 81, Appli
Sequence 81, Appli
Sequence 97, Appli
Sequence 176, Appli
Sequence 176, Appli
Sequence 176, Appli
Sequence 177, Appli
Sequence 177, Appli
Sequence 178, Appli
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						93.8		94.9	95.4			95.9	96.9	98.5	98.5		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
268	267	46	847	646	619	268	269	269	269	268	233	268	1231	268	36	1186	1101	861	856	853	519	391	345	345	344
10	10	10	10	10	10	10	10	10	10	10	10	10	9	10	10	9	9	9	10	9	10	9	10	9	9
US-09-854-816-41	US-09-854-816-38	US-09-854-816-109	-242	-609	US-09-891-609-4	US-09-854-816-26	US-09-854-816-28	US-09-854-816-46	US-09-854-816-12	US-09-854-816-9	US-09-854-816-50	US-09-854-816-13	US-10-059-271-94 ·	US-09-854-816-19	US-09-912-824-1	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1
Sequence 41, Appl		Sequence 109, App	Sequence 2, Appli		4, 7			Sequence 46, Appl	12,		Sequence 50, Appl	Sequence 13, Appl		Sequence 19, Appl	e 1,	Sequence 55, Appl	53,	.03	Sequence 1, Appli	Sequence 33, Appl				49	Sequence 1, Appli

#### ALIGNMENTS

US-09-874-475-16

GENERAL INFORMATION:

APPLICANT: Petropoulos, Christos APPLICANT: Parkin, Neil T. APPLICANT: Whitcomb, Jeanette

APPLICANT:

Huang, Wei

Sequence 16, Application US/09874475 Publication No. US20020182592A1

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US-10-116-797-1
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                                                                                                                            Sequence 1, Application US/10116797
Publication No. US20030044411A1
GENERAL INFORMATION:
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.
TITLE OF INVENTION: METHODS FOR INHIBITING HIV-1 INFECTION
FILE REFERENCE: 64672-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 195; DB 9; Best Local Similarity 100.0%; Pred. No. 7.7e-17; Matches 36; Conservative 0; Mismatches 0;
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LENGTH: 36
CURRENT APPLICATION NUMBER: US/10/116,797 CURRENT FILING DATE: 2002-10-15
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-116-797-1
                                                NAME/KEY: PEPTIDE
LOCATION: (1)..(36)
OTHER INFORMATION: T-20
US-09-796-202-10
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SEQ ID NO 1
LENGTH: 36
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                                                                                                                                                                               SOFTWARE: PatentIn version 3.0 SEQ ID NO 10
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Best Local (
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Best Local Similarity
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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                     Sequence 10, Application U
Patent No. US20020068813A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/493,346
CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
                                                                                                                                                                                                                                APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES
FILE REFERENCE: 2048/61010/JPW/SHS
CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1 TITLE OF INVENTION: Infection FILE REFERENCE: 61009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      equence 1, Application US/09493346 blication No. US20030082185A1 ENERAL INFORMATION:
                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                                                                                                                                                                                   59-796-202-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 30
TYPE: PRT
                                                                                                                               TYPE: PRT
ORGANISM: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                    FEATURE:
                                                                                                                                                                   ENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 36; Conserv
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                                                                                                                                                                                                                                                                                                                                                                     Application US/09796202
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Pred. No. 7.7e-17;
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 Score 195; DB 10;
Pred. No. 7.7e+17;
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               Length 36;
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; SEQ ID NO 5
LENGTH: 36
; TYPE: PRT
; ORGANISM: Human immunodeficiency virus type
US-09-779-451-5
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US-09-834-628-1
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US-09-834-628-1
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1
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Best Local Similarity
Matches 36; Conserva
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Patent No. US20020094521A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
                                                                            Matches
                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                        APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PEPTIDES FOR INHIBITION OF
FILE REFERENCE: 05823.0198-00000
CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Allaway, Graham P. TITLE OF INVENTION: Assay for FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Wild, Carl T APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: YU, YEON GYU
APPLICANT: KIM, KEY-SU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                           LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                             FEATURE:
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                       YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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ilarity 100.0%;
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ilarity 100.0%;
Conservative 0
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                                                                                            Score 195; DB 10;
Pred. No. 7.7e-17;
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Pred. No. 7.7e-17;
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RESULT 8
US-09-854-816-108
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                                                                                                                                                                                  Sequence 108, Application US/09854816 Patent No. US20020151473A1
                                                                                                                                                                                                                                                                                                                                                                    Matches
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est Local Similarity
                                                                                                                                                             GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 1:
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MOLECULE TYPE: DP178
SEQUENCE DESCRIPTION: SEQ ID NO:
1-854-816-1
                                                                                                                                                                                                                                                                                          1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2 TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <UNKNOWN>
PRIOR APPLICATION DATA:
                                     TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 36 amino acids
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                                                                    Melissa A.
                                                                                                        J. Kevin Judice
Robert S. McDowell
                                                                                                                                              Andrew C.
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: 1 Ean Francisco
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James A. Wells
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                                                                                     Christopher Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Christopher Phelan
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                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 195; DB 10; 100.0%; Pred. No. 7.7e-17;
                                    Constrained Helical Peptides and Methods of
                                                     Wells
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APPLICANT: Bachmann, Martin
APPLICANT: Tissot, Alain
APPLICANT: Tissot, Alain
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 176
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                                                                                                                                     ; OTHER INFORMATION: DP178c peptide US-09-848-616-176
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Best Local Similarity
                                                                              Query Match
Best Local :
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                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial Sequence
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TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 108:
                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                  LENGTH: 37
                                                        Match 100.0%; Score 195; Local Similarity 100.0%; Pred. No. 8 tes 36; Conservative 0; Mismatch
1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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COMPUTER READABLE FORM:

MEDLUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: Widpatin (Genentech)
CURRENT APPLICATION DATA:
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LENGTH: 36 amino acids
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NAME: Torchia, PhD., Timoth
REGISTRATION NUMBER: 36,700
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TOPOLOGY: Linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        650/225-8674
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 195; DB 10;
Pred. No. 7.7e-17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                            Mismatches
                                                                                                   DB 9;
                                                            0;
                                                                                               Length 37;
                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37

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US-10-040-349B-2
                                                                                           RESULT 12
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; ORGANISM: Human immunodeficiency virus type 1
US-09-779-451-4

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US-09-779-451-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Human immunodeficiency virus type US-09-779-451-41
             Sequence 2, Application Publication No. US200300 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/09779451
Patent No. US20020094521A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                  Query Match
Best Local
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 4
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for I
FILE REFERENCE: 1900.0300003
APPLICANT: Brasseur, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection o
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Wild, APPLICANT: Allaw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OFTWARE: PatentIn version 3.0 
Q ID NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                       RIOR APPLICATION NUMBER: US 60/181,543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                               ENGTH: 56
                                                                                                                                                 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 46
                                                                                                                                                                                                                                                Local Similarity
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36; Conser
                                                                                                                                                                                                                              Conservative
                             US20030082521A1
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                                                                                                                                                                                                                          100.0%; Score 195; DB 10; 100.0%; Pred. No. 1.2e-16; tive 0; Mismatches 0;
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Pred. No. 1e-16;
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; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; OTHER INFORMATION: peptide US-10-059-271-84
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: ORGANISM: Human immunodeficiency virus type 1
: FEATURE:
: NAME/KEY: Peptide
: LOCATION: (1)..(177)
: OTHER INFORMATION: polypeptide derived from gp41 LAI
US-10-040-349B-2
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                                                                                                                                                  RESULT 14
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US-10-059-271-84
                                                                     Sequence 81, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
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Best Local S
Matches 36
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Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL
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APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEF/
TITLE OF INVENTION: PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: PROTEIN HAVING MULTIPLE TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22
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FILE REFERENCE: 01-078-A

CURRENT APPLICATION NUMBER: US/10/040,349B

CURRENT APPLICATION 2002-07-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: DE 101 PRIOR FILING DATE: 2001-02-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
SOFTWARE: PatentIn ver
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Polypeptide Inducing Antibodies Neutralizing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
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                                                                                                                                                                                                        131 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 139
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les 36; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BUDDE, ECKHARD
NICOLAUS, STEFAN
                 BUDDE, ECKHARD
NICOLAUS, STEFAN
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                                                                                                                                                                                                                                                                               Conservative
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Pred. No. 5.2e-16;
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Pred. No. 4.1e-16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ANTIGEN/EPITOPE SEQUENCES AND
                                                                                                                                                                                                                                                                                                                Length 221;
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INVENTION: PROTEIN

HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND

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NUMBER OF SEQ ID NOS: 97
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 82
LENGTH: 254
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.1

SEO ID NO 81

LENGTH: 232

TYPE: PRT

ORGANISM: Artificial Sequence
FEATURE:
COTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-10-059-271-81
Search completed: May 16, 2003, 12:10:21 Job time : 16.759 secs
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US-10-059-271-82
                                                                                                                                                Query Match
Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 82, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.0%;
Watches 36; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: ALBRE-22
CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22
                                                                                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide 10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                        100.0%; Score 195; DB 9; ilarity 100.0%; Pred. No. 6.1e-16; Conservative 0; Mismatches 0;
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Pred. No. 5.5e-16;
; Mismatches 0;
                                                                                                                                                                                           Length 254;
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                                                                                                                                                        Indels
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                    Result
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Maximum DB
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                                                                                                                                                         Pred. No. is the number of results predicted by chance score greater than or equal to the score of the result and is derived by analysis of the total score distribut
      Score
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1: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
4: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
5: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
6: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
6: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
7: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
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Gapop 10.0 ,
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147.792 Million cell updates/sec
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198
1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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Description
                                                                                                                                                                                   to have a being printed,
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Envelope prote	ABG68303	23	269	94.4	187
SEQ ID NO. 28 fro	AAY22832	19	269	94.4	187
Envelope pro	ABG68282	23	268	94.4	187
SEQ ID NO	AAY22811	19	268	94.4	187
Core polypeptide	AAB78066	22	36	•	187
DP178-like/DP107	AAU13619	22	36		187
Viral core poly	ABB02524	22	36		æ
Viral DP178/107	ABB01073	22	36	٠	187
Core pol	AAY89665	21	36	•	8
Variant HIV-1 S	AAY97073	21	847	•	9
Modified full-l	AAU75155	23	646	•	9
N-terminal mutant	AAU75156	23	619		19
Envelope protei	$\mathbf{a}$	23	268	•	9
SEQ ID NO. 26 fro	AAY22830	19	268	•	9
HIV-1 gp120	AAW43070	19	854	•	9
DP178 homologue	AAU14012	22	36	•	9
HIV-1 gp41 p	$\mathbf{a}$	22	36	•	9
Core po	AAY89836	21	36	٠.	9
DP-178-like	AAW17012	18	36	•	9
DP185 corres	AAR98399	17	36	•	9
DP-178 homologue	AAR67698	16	36	•	9
env gene decode	AAR29706	13	863	00.	9
Sequence of ARV-2	AAP61509	7	863	00	198
HIV-SF2 virus gpl	AAW31284	18	860	00.	9
HIV-1 (ATCC C	٠i	21	855	00.	9
HIV-1 (ATCC CRL 8	AAY77298	21	855	00.	9
ENV prote	AAW53112	19	855	00.	9
HIV-1 env mu	Ö	11	700	00.	9
HIV-1 env5b/huma	<b>~</b> 1	21	275	00.	9
SOD/env-5b protei	≊	19	275	00.	9
elope protein	G6830	23	269	00.	9
elope protei	G68	23	269	00.	198
NO. 31 f	Y2283	19	269	00.	198
ID NO. 30 fr	Y228	19	269		198
HIV antiviral acti	AAB54786	22	36	100.0	198

#### ALIGNMENTS

DR XX PT PT	XPI	PA PA	Y PR	PF A	PD G	Y PN	X S S	X X	ΚW	X X W	XX	ĘX	X &	RESULT AAY898 ID A
WPI; 2000-136792/12.  A new hybrid polypeptide with enhanced pharmacokinetic properties comprises enhancer sequence -	Barney S, Guthrie KI, Merutka G, Anwer MK, Lambert DM;	(TRIM-) TRIMERIS INC.	20-MAY-1998; 98US-0082279.	20-MAY-1999; 99WO-US11219.	25-NOV-1999.	WO9959615-A1.	Unidentified.	colony stimulating factor; hormone; angiogenic factor.	anti-fusogenic; differentiation factor; interleukin; interferon;	Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral;	Core polypeptide fragment T No. 1406.	23-MAY-2000 (first entry)	AAY89837;	RESULT 1 AAY89837 ID AAY89837 standard; peptide; 36 AA.

100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0

AAY89837 AAU70180 ABB01245 ABB01245 ABB02830 AAU13790 AAU13790 AAU13791 AAB92245 AAB92245 AAB78237

Core polypeptide f
HIV viral envelope
Viral DP178/107-1i
Viral DP178/107-1i
Viral core polypep
DP178-11ke/DP107-1
DP178-11ke/DP107-1
Virus related pept
Core polypeptide T
Core polypeptide T

Disclosure; Page

45; 124pp; English

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polypeptides comprising enhancer peptide

CC sequence linked to core polypeptides. The enhancer polypeptides are compared from various retroviral envelope (9p41) protein sequences. CC especially from HIV-1, HIV-2 and SIV. The enhancer peptides are compared from various retroviral envelope (9p41) protein sequences. CC pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any core polypeptide that may be introduced into a living system and that can cc function as a pharmacoligically useful peptide for the treatment or cc prevention of a disease. The core polypeptides are bioactive peptides contectleukin, interferon, colony stimulating factor, hormone or cc angiogenic factor. The peptides of the invention can be used for cc inhibiting viral infection and can be used in anti-viral and can be used in the invention. Some sequences cand form hybrid reluments as comprise enhancer fragments at terminal ends can be used in the invention.

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The invention relates to methods of generating immunogens that elicit neutralising antibodies which target regions of viral envelope proteins such as the gpl20/gp41 (glycoprotein 12)/glycoprotein 41) complex of HIV-1 (human immunodeficiency virus 1). Sequences AAU70179-AAU70198 and
                                                                                                Immunogenic composition for inhibiting HIV infection, comprises viral envelope protein or its fragment exterior to viral membrane, a stabilising peptide, and optionally, viral cell surface receptor or
                                                                                                                                                                                Wild
                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                             Claim
                                                                                                                                                                                                                                17-MAR-2000; 2000US-189981P
                                                                                                                                                                                                                                                           15-MAR-2001; 2001WO-US08108
                                                                                                                                                                                                                                                                                     27-SEP-2001
                                                                                                                                                                                                                                                                                                             WO200170262-A2
                                                                                                                                                       WPI; 2001-626098/72
                                                                                                                                                                                                        (PANA-) PANACOS PHARM INC.
                                                              6;
                                                             Page 45; 84pp; English
                                                                                                                                                                               Allaway GP
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The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 63.8-673 (heptad repeat region HR2) and 558-595 (heptad repeat region

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RESULT 3
ABB01244
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             stabilising peptide to disrupt formation of structural intermediates necessary for viral fusion and entry, and optionally, a viral cell surface receptor or its fragment. The stabilising peptide is capable of associating with the envelope protein or its fragment to form a stabilised, fusion active structure. Antibody binding assays are used to determine the ability of immunogen vaccines to generate an immune response to various forms of envelope. Virus neutralisation assays can bused to characterise the antibody response raised against HIV-1 gp41 domains. The sequences and methods are useful for inhibiting HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU70677-AAU70743 represent stabilising peptides modelling the alpha-helical regions of the ectodomain of the HIV-1 transmembrane protein to stabilise fusion-active intermediate structures, which can used as vaccine immunogens. Immunogenic compositions comprise a viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             envelope protein or its fragment exterior to the viral membrane, a stabilising peptide to disrupt formation of structural intermediates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Viral DP178/107-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JAN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABB01244 standard;
                                                     Disclosure; Page 58; 587pp; English
                                                                                              Heptad repeat region peptide analogs fusion, useful for treating HIV and I
                                                                                                                                         WPI; 2001-514829/56.
                                                                                                                                                                                                                                                      07-FEB-2001; 2001WO-US03988
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  virucide;
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                                                                                 infection
                                                                                                                                                                                              (TRIM-) TRIMERIS INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunodeficiency virus; HIV; respiratory syncytial virus;
ide; heptad repeat region; transmembrane protein; gp41; HR
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36; Conser
                                                                                             useful
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                                                                                                                                                                    Delmedico
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36
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No. 1.4e-17;
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                                                                                                s useful for
Respiratory
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                                                                                                                                                                    Lambert
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                                                                                                inhibiting virus/cells
Syncytial Virus
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1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36

YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF

36

Query Match Best Local

Local Similarity

100.0%;

Score 198; DB 21; Pred. No. 1.4e-17;

21; 0

Conservative

0;

Mismatches

Indels Length

0;

Gaps

0;

0

Sequence

36

Ã,

form hybrid polypeptides.

Matches

RESULT 2

AAU70180

14-FEB-2002

(first entry)

AAU70180 standard;

Peptide;

36

alpha-helical

HIV viral envelope protein stabilising peptide

#2

Human; HIV-1; human immunodeficiency

stabilising

region;

peptide; viral ectodomain.

virus; gp41; glycoprotein 41; gp120; envelope protein; glycoprotein 120;

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XIX
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1245
                                                                                                      The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required for normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
                                                               Sequence
                                                                                                                                                                                                                                                                                                                                Heptad repeat region peptide analogs useful for fusion, useful for treating HIV and Respiratory
                                                                                                                                                                                                                                                                                                                                                                                                              Antczak JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-SEP-2001
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                                                                                              the specification.
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36; Conserv
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Score 198; DB 22;
Pred. No. 1.4e-17;
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Pred. No. 1.4e-17;
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Syncytial Virus
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Conservative

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Gaps

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RESULT 6
AAU13790
ID AAU1
XX
AC AAU1
XX
DT 21-N
XX

AAU13790 standard;

Peptide;

36

AA

21-NOV-2001 AAU13790;

(first entry)

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RESULT 5
ABB02830
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                                                   Query Match
Best Local S
Matches 36
                                                                                                                                              and/or with peptides derived from them. This interaction is require normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided
                                                                                                                                                                                                               The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 638-673 (heptad repeat region HR2) and 538-595 (heptad repeat region HR1) respectively, of HIV-LLAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Viral core
                                                                                                          Sequence
                                                                                                                                   the specification
                                                                                                                                                                                                                                                                                                    Disclosure; Page 524;
                                                                                                                                                                                                                                                                                                                                          Heptad repeat region peptide analogs useful for fusion, useful for treating HIV and Respiratory
                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-514829/56.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-FEB-2000; 2000US-0515965
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   virucide; heptad repeat region; transmembrane protein; gp41; HR1; HR2
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                                                                                                                                                                                                                                                                                                                                                                                                                                        (TRIM-) TRIMERIS INC
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            1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
                                                                 Similarity
                                                                                                          36 AA;
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                                                                Score 198; DB 22;
Pred. No. 1.4e-17;
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Syncytial Virus
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DP178-like/DP107-like peptide T-1405

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                                                                                                                        AAU13791
                                                                                                                                                                                                                                                                                                                                                                              CC The present invention relates to peptides which exhibit anti-rétroviral CC activity. The peptides of the invention (AAUJ259-AAUJ409) comprise CP DP178-like and DP107-like peptides. The DP178 peptide corresponds CC to amino acids 639-673 of the transmembrane protein gp41 from human CC immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide CC corresponds to amino acids 558-595 of gp41 from HIV-1LAI. The invention CC also relates to a method of identifying compounds that inhibit the CC formation of or disrupts a DP107/DP178 complex. The method comprises CC detecting the formation of a DP107/DP178 complex, both in the presence CC or absence of a test compound, in a reaction mixture containing DP107 CC and DP178 peptides. The method is useful for identifying compounds, concluding small molecule compounds, which may themselves exhibit continuation or intracellular modulatory activity. The DP178-like/DP107-like peptides are useful to inhibit human and non-human retroviral, particularly HIV, transmission to uninfected cells. The present sequence represents one of the DP178-like/DP107-like peptides
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DP178-like/DP107-like peptide T-1406
                                    21-NOV-2001
                                                                                                      AAU13791 standard; Peptide; 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antivior intracellular modulatory activity, by detecting the formation of
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                                  (first entry)
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V transmission; mutant; mutein.
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Virus

related

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NO:1421

AAB92245;

22-JUN-2001

(first entry) peptide SEQ

AAB92245 standard; Peptide; 36

Protection; endogenous therapeutic peptide; peptidase; conjugation; blood component; modification; succinimidyl; maleimido group; amino hydroxyl; thiol; hormone; growth factor; neurotransmitter.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 activity. The peptides of the invention (AAU1255-AAU14009) comprises
Dp178-like and Dp107-like peptides. The Dp178 peptide corresponds
to amino acids 639-673 of the transmembrane protein gp41 from human
immunodeficiency virus 1 (HIV-1) isolate LAI. The Dp107 peptide
corresponds to amino acids 558-595 of gp41 from HIV-1LAI. The invention
also relates to a method of identifying compounds that inhibit the
formation of or disrupts a Dp107/Dp178 complex. The method comprises
detecting the formation of a Dp107/Dp178 complex, both in the presence
or absence of a test compound, in a reaction mixture containing Dp107
and Dp178 peptides. The method is useful for identifying compounds,
including small molecule compounds, which may themselves exhibit
antifusogenic, antiviral or intracellular modulatory activity. The
Dp178-like/Dp107-like peptides are useful to inhibit human and non-human
retroviral, particularly HIV, transmission to uninfected cells. The
                                                                                                          Query Match
Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antivior intracellular modulatory activity, by detecting the formation of DP107/DP178 complex
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to peptides which exhibit anti-retroviral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 77;
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                                                1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                            Conservative
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                                                                                                                                 100.0%; Score 198; DB 22; 100.0%; Pred. No. 1.4e-17;
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                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                    DP178-like/DP107-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mutant; mutein.
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AAB78237
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a modified therapeutic peptide (I) comprising a therapeutically active amino acid region (III) and a reactive group (II) (e.g. succinimidyl and maleimido groups) attached to a less therapeutically active amino acid region (IV), which covalently bonds with amino/hydroxyl/thiol groups on blood components to form a peptidase stabilised therapeutic peptide composed of 3-50 amino acids. (I) are useful for modifying therapeutic peptides e.g. hormones, growth factors and neurotransmitters, to protect them from peptidase activity in vivo for the treatment of various disorders. Endogenous therapeutic peptides are not suitable as drug candidates as they require frequent administration due to rapid degradation by peptidases in the body. Modifying and attaching therapeutic peptides to albumin prevents or reduces the action of peptidases to increase length of activity (half life) and specificity as bonding to large molecules decreases absolute to AAB92441 represent peptides which can be used in the ceemblification of the present invention.
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Best Local Similarity
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10-SEP-1999;
15-OCT-1999;
                                                                                                                                                                                                  Core polypeptide; enhancer; antiviral; anti-HIV; virucide; hepatotropic; antiinflammatory; hybrid polypeptide; coiled-coil peptide interaction, fusion-related disorder; bacterial infection; viral infection.
                                                                                     WO200103723-A1
                                                                                                                                               Unidentified
                                                                                                                                                                                                                                                                                                                                              Core polypeptide T1405.
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99US-0159783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0134406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               733pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Milner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 198; DB 22;
Pred. No. 1.4e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Holmes DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to albumin length of i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  n prevents in vivo activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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RESULT 10
AAB78238
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Considering the period of the diagnostic procedure in which they are need as severity of the diagnostic procedure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
        09-JUL-1999; 99US-0350641
                                                                                                                                                                                  Core polypeptide; enhancer; antiviral; anti-HIV; virucide; hepatotropic; antiinflammatory; hybrid polypeptide; coiled-coil peptide interaction; fusion-related disorder;
                                                                                                                                                                     coiled-coil peptide interaction; fusibacterial infection; viral infection.
                                                                                                                                                                                                                                                Core polypeptide T1406
                                                                                                                                                                                                                                                                                                                                                AAB78238 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           an enhancer peptide to form a novel hybrid polypeptide. polypeptide exhibits enhanced pharmacokinetic properties
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 58; 151pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New hybrid polypeptide, e.g. viral infections,
                                                                          18-JAN-2001
                                                                                                                                       Unidentified
                                                                                                                                                                                                                                                                               19-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       In addition, this in which they are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polypeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Barney S,
                                           10-JUL-2000; 2000WO-US18772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      they
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US18772
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       used
                                                                                                                                                                                                                                                                                                                                              Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        is a core polypeptide which may be linked to co form a novel hybrid polypeptide. The hybrid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   useful for preventing, treating and comprises an enhancer peptide linked
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Merutka G,
                                                                                                                                                                                                                                                                                                                                                36 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 198; DB 22;
Pred. No. 1.4e-17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           properties relative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lambert DM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnostic procedure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diagnosing
to a core
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RESULT 11
AAB54786
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Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modulation of neurotransmitter exchange and sperm-egg fusion), intracellular processes involving coiled-coil peptides (e.g. bacterial infections) and viral infections that involve cell-cell and/or virus-cell fusion (e.g. viral infections caused by human immunodeficiency virus, respiratory syncytial virus, Epstein-Barr virus, hepatitis B virus, Mason-Pfizer virus and polio virus). The enhancer peptide sequence increases the half-life and reduces the clearance rate of therapeutic peptides, which increases their efficacy and minimises the incidence and severity of adverse side effects. In addition, this increases the sensitivity of the diagnostic procedure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is a core polypeptide which may be linked to an enhancer peptide to form a novel hybrid polypeptide. The hybrid polypeptide exhibits enhanced pharmacokinetic properties relative to those exhibited by the core polypeptide when introduced into a living system. It is used to increase the in vitro or ex vivo half-life of the core polypeptide. The hybrid and core polypeptides can be used for modulating fusogenic events and intracellular processes involving colled-coil peptide interactions. Other uses include preventing, treating and/or diagnosing disorders involving fusion events (e.g.
                                                                                                                                                                                                                                                          antifusogenic; mobile blood component; measles virus; MeV; SIV; simian immunodeficiency virus; human parainfluenza virus; HPIV; RSV; human respiratory syncytial virus; human immunodeficiency virus; HIV
                                                                                                                                                                                                                                                                                                                                                  HIV antiviral activity exhibiting peptide SEQ ID NO:3.
                                                                                                                                                                                                                                                                                                                                                                                     05-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                    AAB54786
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB54786 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and minimises the incidence and In addition, this increases the in which they are used.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 58; 151pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New hybrid polypeptide, useful for preventing, treating and diagnosing e.g. viral infections, comprises an enhancer peptide linked to a core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-147136/15
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                                (CONJ-) CONJUCHEM INC.
                                                                   17-MAY-1999;
10-SEP-1999;
                                                                                                                     17-MAY-2000; 2000WO-US13651
                                                                                                                                                                                          WO200069902-A1
                                                                                                                                                                                                                         Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                              Long lasting fusion peptide inhibitor; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36
Dufresne RP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A,
                                                                 99US-0134406
99US-0153406
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Merutka G,
Boudjellab N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 198; DB 22;
Pred. No. 1.4e-17;
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Robitaille
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                                                                                                                                                                                                                                                                                                                antiviral;
Milner
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    procedure
PG;
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                                                                                                                                            PF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC groups which is reactive with amino groups, hydroxyl groups, or thiol CC groups on blood components to form stable covalent bonds. (I) has CC anti-viral and anti-fusogenic activities. (I) inhibits viral infection CC of cells by inhibiting cell-cell fusion or free virus infection or to CC reduce the level of membrane fusion events between two or more entities, CC e.g., virus-cell or cell-cell, relative to the level of membrane fusion that occurs in the absence of the peptide. (I) is useful in the CC treatment of patients who are suffering from viral infection, e.g. HIV, CC RSV, HPIV, MeV, and SIV. (I) may be administered prophylactically to previously uninfected individuals. This is useful in cases where an CC individual has been subjected to a high risk of exposure to a virus. CB by bonding of long-lived components of the blood, such as immunoglobin, CC serum albumin, red blood cells and platelets the activity is extended CC for days to weeks. This is due to improved stability in vivo and a CC reduced susceptibility to peptidase or procease degradation. This CC minimises the need for more frequent, or even continual, administration of the peptides. AAB54784 to AAB55431 represent peptides used in the CX exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A modified peptide and a reactive group which is reactive with amino groups, hydroxyl groups, or thiol groups on blood components to form stable covalent bonds useful for treatment of viral infections, e.g. human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                           HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 6; Page 173; 211pp; English.
Braisted A,
Wells JA;
                                                                                                    16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-AUG-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY22834 standard; Protein; 269 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    comprising a peptide that exhibits anti-viral activity and a reactive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention describes a modified anti-viral peptide (I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-007496/01
                                                                                                                                                                 05-NOV-1997;
                                                                                                                                                                                                          14-MAY-1998
                                                                                                                                                                                                                                                WO9820036-A1
                                                                                                                                                                                                                                                                                       Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY22834;
                                                           (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                   30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; ilarity 100.0%; Conservative
                     Judice JK,
                                                                                                    97US-0876698
96US-0743698
                                                                                                                                                                 97WO-US20069
                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9820036
                     McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 198; DB 22;
Pred. No. 1.4e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                     Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 36;
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                     Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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WPI; 1998-286866/25

WPI; 1998-286866/25.

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RESULT 13
AAY22835
В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANY22903 represent consensus sequences of various sections of the 9941

constrained helical peptides of the invention. The constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain cresidues with a diffunctional linker to produce two amide bonds.

The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of CC uses for the constrained helical peptides are in affinity purification of infending protein is not readily cavailable, e.g. replacements for protein A in immunoglobulin constrained in the constrained manually where complete binding protection; for isolation constrained in the constrained manually where complete binding protection is not readily cavailable, e.g. replacements for protein A in immunoglobulin isolation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
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                Braisted A, Wells JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY22835
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; Page 171-172; 279pp; English.
                                                                                                                                                                     05-NOV-1997;
                                                                                                                                                                                                                                                                                                                        vaccine; antibody; viral membrane fusion; viral infeligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                  HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY22835 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptides AAY22805-Y22917 are derived (HIV). Specifically, AAY22810-Y22910
                                                                        (GETH ) GENENTECH INC
                                                                                                            16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                           14-MAY-1998
                                                                                                                                                                                                                                                 WO9820036-A1
                                                                                                                                                                                                                                                                                      Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      torms of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of synthetic antibody clones from phage display libraries,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
36; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY22805-Y22917 are derived from Human immunodeficiency virus pecifically, AAY22810-Y22910 are derived from gp41 proteins HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "floppy" peptides or proteins
                                                                                                                                                                                                                                                                                                                                                                                                                         31 from WO9820036.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 269 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                    Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                            97US-0876698
96US-0743698
                                                                                                                                                                     97WO-US20069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                    McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 198; DB 19;
Pred. No. 1.3e-16;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                    Phelan JC,
                                                                                                                                                                                                                                                                                                                                                              infectivity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                    Starovasnik MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         269;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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Best Local
                                                                                                16-JUN-1997;
06-NOV-1996;
16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for of synthetic antibody clones from phage display libraries, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp4l protein, useful in vaccines for treatment and prevention
                                                                                                                                                                                                                                                                                                                                                                                                               07-OCT-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11; Page 172-173; 279pp; English.
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                             Braisted AC,
                                                                                                                                                                    05-NOV-1997;
                                                                                                                                                                                                      07-AUG-2001
                                                                                                                                                                                                                                         US6271198-B1
                                                                                                                                                                                                                                                                          Human immunodeficiency virus type 1 clade
                                                                                                                                                                                                                                                                                                          viral envelope protein; vaccine; virucide; anti-HIV
                                                                                                                                                                                                                                                                                                                           virus-induced membrane fusion; acquired
                                                                                                                                                                                                                                                                                                                                             HIV; glycoprotein; gp41; antigen; helical conformation;
                                                                                                                                                                                                                                                                                                                                                                            Envelope protein gp41 from HIV clade B strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG68305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABG68305 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of ligands (particularly where complete binding protein is
                                                               (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     forms of "floppy" peptides or proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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                              Judice JK,
                                                                                              97US-049787P.
96US-0743698.
97US-0876698.
                                                                                                                                                                    97US-0965056
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                              McDowell RS,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 198; DB 19;
Pred. No. 1.3e-16;
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                              Phelan
                                                                                                                                                                                                                                                                                                                             immunodeficiency syndrome;
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06-NOV-1996;
16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            preferably where associated with a carrier, as an immunogen (including as vaccine) to raise antibodies. The antibodies may be used for diagnosis or prevention/treatment of HIV infection (i.e. acquired immunodeficiency syndrome, AIDS), e.g. prevention of mother-to-child transmission or in cases of health care accidents. The peptides can be based on specific strains, e.g. breakthrough isolates of HIV that have developed during vaccine trials, so a combination of them should cover a wide range of protection. The present sequence is 9p41 protein from a particular
                                                                                                                                                                                                                                                                                                                                                                                                      HIV; glycoprotein; gp41; antigen; helical conformation; virus-induced membrane fusion; acquired immunodeficiency syndrome; viral envelope protein; vaccine; virucide; anti-HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New cyclic peptides from human immune deficiency virus gp41, useful for treatment or prevention of HIV infection, are constrained to have alpha-helical conformation \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immune response, resulting in antibodies that prevent virus-induced membrane fusion. The peptides are used to treat subjects with, or a of, HIV infection, either as antifusion/anti-infection agents or,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABG68306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-487624/52
New cyclic peptides from human immune deficiency virus gp41, treatment or prevention of HIV infection, are constrained to
                                                      WPI; 2002-487624/52
                                                                                            Wells JA;
                                                                                                             Braisted AC,
                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                           05-NOV-1997;
                                                                                                                                                                                                                                                                                              07-AUG-2001.
                                                                                                                                                                                                                                                                                                                                  US6271198-B1
                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus type 1 clade B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Envelope protein gp41 from HIV clade B strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-OCT-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Column 175-176; 175pp; English.
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36; Conserv
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                                                                                                             Judice JK,
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96US-0743698.
97US-0876698.
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Pred. No. 1.3e-16;
Mismatches 0;
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                                                                                                               Starovasnik MA;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                         prevention/treatment of HIV infection (i.e. acquired immunodeficiency syndrome, AIDS), e.g. prevention of mother-to-child transmission or in cases of health care accidents. The peptides can be based on specific HIV strains, e.g. breakthrough isolates of HIV that have developed during vaccine trials, so a combination of them should cover a wide range of protection. The present sequence is gp41 protein from a particular HIV clade used to derive a consensus sequence of gp41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to cyclic peptides (A) with a constrained helic conformation, derived from gp41 (glycoprotein 41, a viral envelope protein) protein of human immunodeficiency virus (HIY). The cyclic peptides have formulas given in the specification part of which are derived from a consensus sequence of gp41 derived from HIV clades A. (, D, E or O. The peptides are used to cause induction of a specific immune response, resulting in antibodies that prevent virus-induced membrane fusion. The peptides are used to treat subjects with, or at of, HIV infection, either as antifusion/anti-infection agents or, and the peptides are used to treat subjects with or at the confidence of the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with or at the peptides are used to treat subjects with the peptides are used to treat subjects with the peptides are used to treat subjects with the peptides are used to treat subjects with the peptides are used to treat subjects with the peptides are used to treat subjects with the peptides are used to treat subjects with the peptides are used to 
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                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           preferably where associated with a carrier, as an immunogen (including
169 YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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                                                                        YTNTIYTLLEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                    Conservative
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Pred No 1.3e-16;
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Search completed: May 16, 2003, 11:12:01 Job time: 33.4578 secs

GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

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## ALIGNMENTS

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1 YTSLIHSLIEESONQQEKNEQELLELDKWASLWNWF 36  + - - - - - - - - - - - - - - - - - -	Query Match 100.0%; Score 195; DB 15; Length 645; Best Local Similarity 100.0%; Pred. No. 1.7e-15; Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0.	SEQUENCE 645 AA; 72485 MW; B076514BE93362EC CRC64;	PIAM; PF00517; GP41; 1.  AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;	Pro; IPR000777; PF00516; GP120	Interpro; IPR000328; Env_GP41.	Proc. Natl. Acad. Sci. U.S.A. 98:4587-4592(2001).	<pre>HIV envelope glycoprotein suggests structural influences on antigen processing.";</pre>	"Localization of CD4+ T cell epitope hotspots to exposed strands of	Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M.,	STRAIN=1007; MEDLINE=21192672; PubMed=11287644;	SEQUENCE FROM N.A.	NCBI_TaxID=11676;	Human immunodeficiency virus type 1.	Truncated envelope glycoprotein (Fragment).	01-JUN-2001 (TrEMBIrel 17, Last sequence update) 01-DEC-2001 (TrEMBIrel 19, Last annotation update)	-2001 (Premarre) 17 Organod)	LT 1 A6 0003a6 DRFITMINADV: DRT. 645 A

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STRAIN=LW87-1;
STRAIN=LW87-1;
Reitz M., Hall L., Robert-Guroff M., Lautenberger of Reitz M., Hall L., Weiss S., Waters D., Gallo R., B. Shaw G., Kong L., Weiss S., Waters D., Gallo R., B. "Viral variability and serum antibody response in infected with HIV type 1 (HTLV type IIIB).";
**TDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                   Q70606
Q70606;
Submitted (JUL-1994)
EMBL; U12032; AAA766
                                                                         MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger
Shaw G., Kong L., Weiss S., Waters D., Gallo R., B
"Viral variability and serum antibody response in
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                          Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; NCBI_TaxID=11676;
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01-NOV-1996 (TrEMBLrel. 11, Last;
01-DEC-2001 (TrEMBLrel. 19, Last;
Envelope glycoprotein (Fragment).
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                       Mulder K.E.;
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
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SEQUENCE 747 AA; 84250 MW; 732E836A52245F14 CRC64;
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NCBI_TaxID=11676;
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070605 PRELIMINARY; 070605; 01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1996 (TrEMBLrel. 01, 01-DEC-2001 (TrEMBLrel. 19,

Viruses; Retroid NCBI\_TaxID=11676;

Human immunodeficiency virus type

viruses;

Retroviridae;

Lentivirus

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Reitz M., Hall L., Robert-Guroff M., Lautenberger J.
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Bla
"Viral variability and serum antibody response in a
infected with HIV type 1 (HTLV type IIIB).";
ALDS Res. Hum: Retroviruses 10:1143-1155(1994).
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AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laborator
infected with HIV type 1 (HTLV type IIIB).";
ALDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                     NON_TER
SEQUENCE
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Viruses; Retroid viruses; Retroviridae; Lentivirus
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InterPro; IPR000777; GP120.
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EMBL; U12035; AAA76670.1;
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Q78243;
Q1-NOV-1996
      MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M.,
Shaw G., Kong L., Welss S., Waters D
"Viral variability and serum antibod;
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NCBI_TaxID=11676;
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"Variability of HIV-1 virus: characteristics
productive clone.";
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MEDLINE-89352106; PubMed-2765297;
Federico M., Titti F., Butto S., Orecchia
Macchi B., Mangiano N., Verani P., Rossi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Sequence analysis of HIV-1 proviral chronically infected HUT-78 cellular
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Viruses; Retroid viruses; Retroviridae;
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Viruses; Retroid viruses; Retroviridae; Lentivirus
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Borsetti A., Saggio I., Verani P., Rossi G.;
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InterPro; IPR000777; GP120.
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AIDS Res.
                                                                                                                               J. Virol. 66:3151-3154(1992).
EMBL; M19921; AAA44992.1; -
Interpro; IPR000328; Env_Gp41.
Interpro; IPR000777; Gp120.
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;
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EMBL; U12053; AAA76685.1;
EMBL; U12036; AAA76671.1;
                                                            Pfam; PF00516; GP120;
Pfam; PF00517; GP41;
AIDS; Coat protein; G
SEQUENCE 854 AA; 9;
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J. Virol. 59:284-291(1986).
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. Hum. Retroviruses 10:1143-1155(1994).
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Viruses; Retroid viruses; Retroviridae; Lentivirus
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PubMed=9882298;
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31 H -> L (IN REF. 2).
530 A -> S (IN REF. 2).
739 G -> D (IN REF. 2).
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InterPro; IPR000338; Env_GP41.
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AIDS;
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Virology 174:103-116(1990).
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                                                                                                                                                                                                                                                                                                                                     Submitted (JUN-1996) to the EMBL/GenBank/DDBJ EMBL; D86068; BAA12995.1; -. IPR000328; Env_GP41. InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=90101366; PubMed=1688473; Cloyd M.W., Moore B.E.;
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Viruses; Retroid viruses; Retroviridae;
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Letvin N.L., Sodroski J.G.;
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Best Local
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Q74090;
01-NOV-1996
01-NOV-1996
01-DEC-2001
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090178;
01-NOV-1998
                                     Pfam;
                                                                             immunotoxin-resistant variant T cell line.";
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ
EMBL, AF070521; AAC28452.1; -
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                    MEDLINE=95074930; Publ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; D86069; BAA13003.1; -.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cloyd M.W., Moore B.E.;
"Spectrum of Biological Properties
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type Viruses; Retroid viruses; Retrovir Viruses; Retrovir VCBI_TaxID=11676;
                                                                                                                                                                                                       SEQUENCE FROM N.A. Fang H., Pincus S.H.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Viruses; Retroid
NCBI_TaxID=11676;
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01-DEC-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (JUN-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-PM213;
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                                                                                                                                                                                                                                                                         J. Virol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (HIV-1) Isolates.";
Virology 174:103-116(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=90101366;
                                                                Pfam;
                                                                                                                                                                   "Spontaneous activation of human immunodeficiency virus immunotoxin-resistant variant T cell line.";
                                                                                                                                                                                                                                                                                             infected
                                                                                                                                                                                                                                                                                                                                   "Unique insertion sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type
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les 36; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                     PF00516; GP120; 1. PF00517; GP41; 1.
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PF00517; GP41; 1
Coat protein; Gl
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T cells.";
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                                                                                                                                                                                                                                                                                                                                                                             PubMed=7983770;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glycoprotein; Polyprotein; Transmembrane. 97396 MW; FE3E784C423C108C CRC64;
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01, Last sequence update)
19, Last annotation updat
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                                                                                                                                                                                                                                                                                                            and pattern of CD4 expression in variants from human immunodeficiency virus type 1-
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Last sequence up
Last annotation
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Pred. No. 2.3e-15;
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AIDS; Coa SEQUENCE

protein; 854 AA;

Glycoprotein; Polyprotein; 7 96885 MW; 0808F3AED27C693B

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Search completed: May 16, 2003, 11:19:42 time : 28.3124 secs
                                                                                                                                                      Query Match 97.9
Best Local Similarity 97.3
Matches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 97.9%;
Best Local Similarity 97.2%;
Matches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             078705; PRELIMINARY; PRT; 854 AA.
078705; O1-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDILINE-96013815; PubMed=7474132;

Duensing T.D., Fang H., Dorward D.W., Pincus S.H.;

Processing of the envelope glycoprotein gp160 in immunotoxin-
resistant cell lines chronically infected with human immunodeficiency
virus type 1.";

J. Virol. 69:7122-7131(1995).

EMBL; L42371; AAA96326.1; -

InterPro; IPR0007328; Env_GP41.

InterPro; IPR000777; GP120.

pfam; PF00517; GP120; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus
NCBI_TaxID=11676;
                                                                                                                                                                                                                                AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane. SEQUENCE 854 AA; 97199 MW; 5B9512216533E256 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Envelope glycoprotein gp120.
                                                                          1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                        97.9%;
97.2%;
                                                                                                                                                    Score 191; DB 15;
Pred. No. 6.9e-15;
1; Mismatches 0;
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Pred. No. 6.9e-15;
1; Mismatches 0;
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GenCore version 5.1.4_p5_4578

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OM protein - protein search, using sw model

Run on: May 16, 2003, 11:03:40; Search time 10.1928 Seconds (without alignments)
103:99-623-533A-1
Perfect score: 195
Sequence: 195
Sequence: 17TSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

Scoring table: BLOSUM62
Gapop 10.0, Gapext 0.5
Searched: 262574 seqs, 29422922 residues

All number of hits satisfying chosen parameters: 262574
Maximum DB seq length: 0
Maximum DB seq length: 2000000000
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
Database : Issued\_Patents\_AA:\*

Issued\_Patents\_AA:\*

1: /cgn2\_6/ptodata/1/iaa/5A\_COMB.pep:\*

2: /cgn2\_6/ptodata/1/iaa/5B\_COMB.pep:\*

3: /cgn2\_6/ptodata/1/iaa/6A\_COMB.pep:\*

4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep:\*

5: /cgn2\_6/ptodata/1/iaa/FOTUS\_COMB.pep:\*

6: /cgn2\_6/ptodata/1/iaa/Dackfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Result	Score	Query Match L	Length [	DB	ID	Description	
1	195	100.0	36	ب ب	US-08-073-028-1	Sequence 1, A	Appli
2	195	100.0	36	ω	-08-486-		Appli
ω	195	100.0	36	w	-09	1,	ppli
4	195	100.0	36	ω	US-08-360-107A-1	1	Appli
5	195		36 6	w	US-08-484-223B-1	1	ppli
6	195	100.0	36	w	-08-919-597-1	1,	Appli
7	195		36	w	US-08-475-668A-1	,	opli
œ	195	•	36	w	US-08-485-551A-1	1	Appli
9	195	100.0	36	w	US-08-471-913A-1	μ,	ppli
10	195		36	4	-08-554	۲,	Appli
11	195		36	4	US-08-485-264A-1	سر	Appli
12	195	100.0	36	4	US-09-082-279B-15	15	Appl
13	195		36	4	US-09-082-279B-497	497,	App
14	195	100.0	36	4	US-09-082-279B-498		App
15	195	100.0	36	4	US-09-082-279B-603		App
16	195	100.0	36	4	1	Sequence 630,	App
17	195	100.0	36	4	US-09-082-279B-631		App
18	195	100.0	36	4	US-09-082-279B-705		App
19	195	100.0	36	4	US-09-082-279B-834	Sequence 834,	App
20	195	100.0	36	4	US-09-082-279B-1076	Sequence 1076,	Αp
21	195	100.0	36	4	US-09-082-279B-1121		, Ap
22	195	100.0	36	4	US-09-082-279B-1161		
23	195	100.0	36	4	US-08-965-056-1		ilqc
24	195	100.0	36	4	US-08-965-056-108		App
25	195	100.0	36	4	US-09-045-920-1	Sequence 1, Appli	ilqc
26	195	100.0	36	4	US-08-474-349A-1		Appli
27	195	100.0	36	4	US-08-474-349A-399	399	App

Q

Best Local Similarity 100.0%; Pred. No. 5.5e-18; Matches 36; Conservative 0; Mismatches 0;

Indels

0;

Gaps

0;

1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

29 195 100.0 36 4 US-09-315-304B-631 31 195 100.0 36 4 US-09-315-304B-497 31 195 100.0 36 4 US-09-315-304B-693 32 195 100.0 36 4 US-09-315-304B-631 34 195 100.0 36 4 US-09-315-304B-631 35 195 100.0 36 4 US-09-315-304B-631 36 195 100.0 36 4 US-09-315-304B-1031 37 195 100.0 36 4 US-09-315-304B-11076 38 195 100.0 36 4 US-09-315-304B-11071 39 195 100.0 36 4 US-09-315-304B-11071 39 195 100.0 36 4 US-09-315-304B-11461 40 195 100.0 36 4 US-09-315-304B-1469 41 195 100.0 36 4 US-09-315-304B-1469 42 195 100.0 36 4 US-09-315-304B-1469 43 195 100.0 36 4 US-09-315-304B-1469 44 195 100.0 36 4 US-09-315-304B-1469 45 195 100.0 36 4 US-09-315-304B-1469 47 195 100.0 36 4 US-09-315-304B-1469 48 195 100.0 37 4 US-09-315-304B-1486 49 195 100.0 37 4 US-09-082-279B-775
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### ALIGNMENTS

INFO	RESULT US-08-C
FILING DATE: 07-JUN-1993  CLASSIFICATION: 514  ATTORNEY/AGENT INFORMATION:  NAME: COTUZZI, LAUTA A.  REGISTRATION NUMBER: 30,742  REFERENCE/DOCKET NUMBER: 7872-004-999  TELEPHONE: (212) 790-9090  TELEPHONE: (212) 89-8864/9741  TELEX: 66141 PENNIE  INFORMATION FOR SEQ ID NO: 1:  SEQUENCE CHARACTERISTICS:  LENGTH: 36 amino acids  TYPE: amino acid  STRANDEDNESS: single  TOPOLOGY: unknown	WESULT 1  US-08-073-028-1  US-08-073-028-1  Sequence 1, Application US/08073028  Patent No. 5464933  PapLICANT: Matthews, Thomas J. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T. T. T. T. T. T. T. T. T. T. T. T. T.
DATE: 07-JUN- TICATION: 514  *AGENT INFORMAT COTUZZI, LAURA COTUZZ	1, Application US/08073 1, Application US/08073 1, S464933 1 INFORMATION: ANT: Bolognesi, Dani P ZANT: Watthews, Thomas ANT: Wild, Carl T. OF INVENTION: SYNTHETI OF INVENTION: TRANSMIS R OF SEQUENCES: 74 SPONDENCE ADDRESS: SPONDENCE ADDRESS: C. New YORK TE: New YORK TE: New YORK TE: New YORK TE: New YORK TER READABLE FORM: IO36 VIRY: USA IO36 VIRY: USA IO36 VIRY: USA IO36 VIRY: USA INTERENCE FOOPY disk IO4710 SYSTEM: PC-DOS/M TWARE: Patentin Release TWARTION DATA: IC4710N
IN-1993 AATION: AATION: AATION: AATION: AMBER: 7: MABER:	lication US/08073028  933  MATION: Bolognesi, Dani P. Matthews, Thomas J. Mild, Carl T. Matthews, Thomas J. MILD, Carl T. MATHON: TRANSMISSION DUBNCES: 74 CE ADDRESS: 74 CE ADDRESS: Pennie & Edmonds 155 Avenue of the Americas 7 York USA 056 E Floppy disk USA 158 Floppy disk USA 159 Floppy disk USA 150 Flo
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                                                                                                                                       Sequence 1, Application US/09071877 Patent No. 6015881
                                                                                                                      GENERAL INFORMATION:
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                                                                                  APPLICANT: Kang, Myung-Chol APPLICANT: Bray, Brian
                                                                     APPLICANT:
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FILE REFERENCE:
                                  APPLICANT:
          NPPLICANT: METUTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                   Local Similarity
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Mader, Catherine
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Langlois, Alphonse J
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Lambert, Dennis M.
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7872-050
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Pred. No. 5.5e-18;
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                Query Match
Best Local Similarity
   Matches
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Patent No.
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CURRENT FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 19
SOFTWARE: PatentIn Ver. 2.0
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TYPE: PRT
                                                                                   TOPOLOGY: ur
MOLECULE TYPE:
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ATTORNEY/AGENT INFORMATION:
NAME: COTUZZÍ, Laura A.
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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mer.ex: 66141 PENNIE
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1155 Avenue of the Americas
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Matthews, Thomas J
Wild, Carl T.
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                                                                                                     unknown
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                                                                                 peptide
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100.0%; Pred. No. 5.5e-18;
tive 0; Mismatches 0;
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Score 195; DB 3;
Pred. No. 5.5e-18;
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US-08-484-223B-1

Sequence 1 Patent No.

, Application US/08484223B 6020459

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US-08-919-597-1
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                                                                                                                Sequence 1, Application Patent No. 6054265
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Best Local Similarity
                                                                                                  GENERAL
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER: US/0:
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
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MEDIUM TYPE: Floppy disk
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APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF
TITLE OF INVENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
TITLE OF INVENTION: TRANSMISSION
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TELECOMMUNICATION INFORMATION:
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NAME: COTUZZI, Laura A.
REGISTRATION NUMBER: 30,742
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                Barney, Shawn O.
                                                Wild, Carl T.
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Lambert, Dennis M.
Petteway, Stephen
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US-08-475-668A-1
                                                                                                                                                                                                                                                                                                                                 Patent No.
                                                                                                                                                                                                                                                                                                                                               Sequence
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Best Local
                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Barney
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
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TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
COMPUTER: PC-DOS/MS-DOS
COMPUTER: PC-DOS/MS-DOS
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APPLICATION NUMBER: US 08/470,896
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                         TITLE OF INVENTION:
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                            TITLE OF INVENTION:
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                                                                                                        CITY: New York STATE: New Yor
                                                                                                                    ADDRESSEE: Pennie a bum....
ADDRESSEET: 1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 100. les 36; Conservative
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1155 Avenue of the Americas
                                                                                      USA
                                                                                                                                                                                                                                                             Petteway, Stephen R
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                                                                                                                                                                                                                                                                                           Barney, Shawn O.
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                                                                                                                                                                                                          TRANSMISSION
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Pred. No. 5.5e-18;
; Mismatches 0;
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Best Local Similarity
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NFORMATION FOR SEQ
SEQUENCE CHARACTER
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
                                                                                                                                                   APPLICATION NUMBER: US/01
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Petteway, Stephen R.
APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: METHODS FOR INHIBITION OF MEMBRANE
TITLE OF INVENTION: FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS
TITLE OF INVENTION: TRANSMISSION
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ATTORNEY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION:
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                               TELEX:
                                                                                                      NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 78
                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
                                                   TELEFAX:
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STATE: New Yor
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ZIP: 10036-2711
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                                                    (212) 869-9741/8864
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Lambert, Dennis M.
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              SEQ ID NO:
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Pred. No. 5.5e-18;
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Best Local :
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: TBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAtentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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APPLICANT: Langlois, Alphonse J.
TITLE OF INVENTION: COMPOSITIONS FOR INHIBITION OF MEMBRANE
TITLE OF INVENTION: FUSION-ASSOCIATED EVENTS, INCLUDING EPST
TITLE OF INVENTION: TRANSMISSION
                                                                                                                                          MOLECULE TYPE: peptide
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les 36; Conserv
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                           1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                            Conservative
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Matthews, Thomas
Wild, Carl T.
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                                                                                                                                                                                                                                                                                                                     7872-030
                                                                          Score 195; DB 3;
Pred. No. 5.5e-18;
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Pred. No. 5.5e-18;
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                                                                                          Length 36;
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US-08-554-616-1
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                                                                                                                                                                                          Patent No. 6228983
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                                                                                                                                                                             GENERAL
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APPLICATION NUMBER: US 01
FILING DATE: 07-UN-1993
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
                TITLE OF INVENTION: TITLE OF INVENTION:
                                                                APPLICANT:
                                                                               APPLICANT:
                                                                                              APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T.
   NUMBER OF
                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/554,616 FILING DATE: 06-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM:
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STATE: New York
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                                                                                                                                                                             INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                           Application US/08485264A
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Petteway, Stephen R.
Langlois, Alphonse J.
VENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUI
VENTION: RESPIRATORY SYNCYTIAL VIRUS TRANSMISSION
SEQUENCES: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36 amino acids
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                                                                                                                           Matthews, Thomas J. Wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (212) 869-8864/9741
                                                                                                            Barney, Shawn O.
                                                                                                                                                          Bolognesi, Dani P.
                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                             Lambert, Dennis M.
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SYSTEM: PC-DOS/MS-DOS
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Pred. No. 5.5e-18;
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; OTHER INFORMATION: Core polypeptide US-09-082-279B-15
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US-09-082-279B-15
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Best Local Similarity
Thes 36; Conserve
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                  Query Match
Best Local Similarity
                                                                                                                                                SEQ ID NO 15
LENGTH: 36
   Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/082,279B CURRENT FILING DATE: 1998-05-20
                                                                                                                                                                                                                                             APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
                                                                                                                                                                                NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
TELEX: 65141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                              APPLICANT:
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                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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MOLECULE TYPE:
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APPLICATION NUMBER: US,
FILING DATE: 07-JUN-199
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: New York
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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ZIP: 10036-2711
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No. 6258782
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Merutka, Gene
Anwer, Mohmed
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100.0%; illarity 100.0%; Conservative (
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                Score 195; DB 4;
Pred. No. 5.5e-18;
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Pred. No. 5.5e-18;
   Mismatches
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                                 Length 36;
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FEASTSEQ for Windows Version 3.0
SEQ ID NO 498
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Core polypeptide
US-09-082-279B-498
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: Sequence 498, Application US/09082279B

: Patent No. 6258782
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RESULT 15
US-09-082-279B-603
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Best Local Similarity
Matches 36; Conserva
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APPLICANT: Barney, Shawn
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ID NO 497
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                      Query Match
Best Local Similarity
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
ITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                      YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                  YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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Guthrie, Kelly
Merutka, Gene
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Merutka, Gene
Anwer, Mohmed
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                                                                                                                                         Conservative
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100.0%; Pred. No. 5.5e-18;
... Mismatches 0;
                                                                                                                                                         100.0%;
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                                                                                                                                                         Score 195; DB 4;
Pred. No. 5.5e-18;
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; FEATURE:
; OTHER INFORMATION: Core polypeptide
US-09-082-279B-603
Db.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 603, Application US/09082279B Patent No. 6258782
                                                                    Query Match
Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYERID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
                                                                                                                                                                                             TYPE: PRT ORGANISM: Artificial Sequence
                 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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Merutka, Gene
Anwer, Mohmed
                                                                      Conservative
                                                                                       100.0%; Score 195; DB 4; 100.0%; Pred. No. 5.5e-18;
                                                                          0;
                                                                        Mismatches
                                                                                                             Length 36;
                                                                            Indels
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                                                                              Gaps
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Search completed: May 16, 2003, 11:22:09 Job time: 11.1928 secs

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Title:
Perfect score:
Sequence:
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No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                       Score
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Match Length
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147.792 Million cell updates/sec
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              DB
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        AAR64364
AAR98398
AAW17011
AAY22912
AAY22805
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AAB52688
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DP-178 derived fro DP178 corresponds HIV-1 derived pept SEQ ID NO. 108 from SEQ ID NO. 1 from Synthetic peptide HIV-1 LAI GP41 T-2 T20/DP178 peptide T20/DP178 peptide T20/DP178 peptide
                                                                                                                                                                                                                                                                                                                 Description
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	07-Ј	22-D	WO94	Modi	Key Modif	Synthe	antiv human alpha	DP-1	24-A	AAR643	SULT 1 264364 AAR6		44444688888888888888888888888888888888	1
JUN-1993	JUN-1994	DEC-1994	WO9428920-A	fied-s	fied-si	hetic.	iral immu heli	178 der	AUG-199	4364;	4364 st		11111111111111111111111111111111111111	1 ) 1
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3US-00	94WO-US057			38 /note=	Location 1 /note=		ty; DP ciency cine z	rom HI	rst en		d; Pep			
0073028	05739			"op	on/Qua "opti 9-flu		-178 vir ippe	V - 1	try)		tide			,
					uali tion luor		us; DP	isol			; 36			
				optionally has racromolecular c	fiers ally has enylmeth		P-107; diagnost transmembrane DP-185.	ate LAI			AA.	ALIGNMENTS	AAB1453 AAY88653 AAY889135 AAY89135 AAY89135 AAY89135 AAY899424 AAY89977 AAY89997 AAY89997 AAY89999 AAU701741 AAAY89983 AAU701741 AABB00080 ABB00087 ABB00087 ABB00626 ABB00627 ABB00627 ABB00627 ABB00627 ABB00627 ABB00627 ABB0011100 ABB011100 ABB011100 ABB011100 ABB011100 ABB011100 ABB011100 ABB011101 ABB011391 ABB011414 ABB0114114 ABB0114114 ABB0114114	
				a carboxyl, a carrier gp	an amino, ac xy-carbonyl,		;ic; нIV- protein;	has antiviral a				NTS		
				ac led	etyl, hydrophobic or		1LAI; gp41;	activity.					HIV-1 isolate LAI Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f Core polypeptide f HIV viral envelope HXB2 transmembrane Anti-HIV peptide HIV-1 gp41 pepti	
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RESULT 2
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Best Local Similarity . 100
Matches 36; Conservative
                                                                                                                                                                                                                                                                                                                                  Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein-protein interactions, and possess anti-vital activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission
                                  Inhibiting viral transmission, e.g. HIV or isolated peptide recognised by an ALLMOTI5, sequence search motif
                                                                                        WPI; 1996-309517/31.
                                                                                                                                                                                                                                                                                                                                                                                       DP178 corresponds to residues
                                                                                                                                                                                                                                                                                                                                                                                                                17-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 11; Page 132; 182pp; English
          Disclosure; Fig 1; 471pp; English
                                                                                                                                                                                           06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                                                                    WO9619495-A1
                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR98398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR98398 standard; peptide; 36 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIV transmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Computer search generated synthetic peptides
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Petteway SR,
                                                                                                                            Barney
                                                                                                                                                                                                                                 20-DEC-1995;
                                                                                                                                                                                                                                                           27-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        uninfected cells, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYDU-) UNIV DUKE
                                                                                                                                                      (UYDU-) UNIV
                                                                                                                                                                  (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR64364 is designated DP-178, and corresponds to amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                       / SO,
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, Wild CT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tools.
                                                                                                               Bolognesi DP,
, Petteway SR,
                                                                                                                                                      DUKE.
                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                           95US-0470896
94US-0360107
                                                                                                                                                                                                                                  95WO-US16733
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        can also be used as type and/or subtype specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lambert
                                                                                                                Lambert DM, Wild CT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 195; DB 16;
Pred. No. 4.1e-17;
                                                                                                                                                                                                                                                                                                                                                                                       638-673 of HIV-1(LAI) gp41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĎW,
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                                                                                                                            Langlois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36
                                                 RSV, to a cell - us., 107x178x4 or PLZIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         •
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                                                             using
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

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RESULT 3
AAW17011
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Best Local
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Best Local
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                                                                                                     reverse transcriptase, viral protease, cytokine, glycosylation or viral mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting viral replication or inhibiting transmission. They may
                                                                                                                                                                                                                                    Claim 2; Figure 1; 84pp; English.
                                                                                                                                                                                                                                                              Compsns. contg. DP-178 or DP-107 in combination with other therapeutic agent – useful for treatment of HIV infection, inhibiting replication or transmission of HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV; SIV: human; simian immunodeficiency virus; gl: transmembrane; antiviral; DP-178; DP-107; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIV-1 derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAW17011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW17011 standard;
                                                             Sequence
                                                                                            also be
                                                                                                                                                    from HIV type 1 glycoprotein 41 (gp41) transmembrane protein. The peptide corresponds to residues 638-673 of gp41. DP-178 and its derivatives are used in combination with a therapeutic agent, e.g.
                                                                                                                                                                                                                                                                                                                              WPI; 1997-099886/09
                                                                                                                                                                                                                                                                                                                                                             Johnson RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9640191-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                       AAW17011
                                                                                                                                                                                                                                                                                                                                                                                            (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            replication;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
36; Conserv
 36;
                Similarity
                                                                                             used
                                                                                                                                                                                                       represents a peptide designated DP-178, a peptide derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36
                                                               36 AA;
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 Conservative
                                                                                                                                                                                                                                                                                                                                                             Lambert DM;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               transmission
                                                                                          in vaccines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptide useful
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        96WO-US09499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide;
              100.0%;
                                                                                             for
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 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36
                                                                                       protecting against HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               type 1 LAI isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for treatment of HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 195; DB 17;
Pred. No. 4.1e-17;
Score 195; DB 18;
Pred. No. 4.1e-17;
Mismatches 0;
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   Indels
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                                   36;
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                                                                                                                                                                                                                                                                                   esp.
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QY
                                                                                                                            RESULT 4
AAY22912
                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                 ANY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that
                                                                                                                                                        constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable forms of "floppy" peptides or proteins.
                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                         prevent viral membrane fusion or infectivity. Vaccines may contain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 233-234; 279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention of infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Braisted A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09820036-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO. 108 from WO9820036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY22912;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY22912 standard; Peptide;
                                                                        Local
1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                      Similarity
                                                                                                                            36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0876698
96US-0743698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US20069
                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36
                                                                  Score 195; DB 19;
Pred. No. 4.1e-17;
                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Phelan JC,
                                                   0;
                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Starovasnik
                                                                                     36;
                                                   0,
                                               Gaps
                                                 0;
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В

36

В δÃ

Matches Query Match Best Local

1 Similarity 100 36; Conservative

100.0%;

Score 195; DB 19; Pred. No. 4.1e-17; Mismatches

Length Indels

0,

Gaps

0;

0;

1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

36

Sequence

36

AA;

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RESULT 5
AAY22805
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          XX
                                                                                                                                constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection, other uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available of particularly where complete binding protein is not readily
                                 available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable forms of "floppy" peptides or proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                             of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV; gp41 protein; constrained helical peptide; HIV vaccine; antibody; viral membrane fusion; viral inferigand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus (HIV). Specifically, AAY22810-Y22910 are derived from 9p41 proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 143-144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Braisted A, Judice JK, Wells JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W09820036-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY22805;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY22805 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0876698.
96US-0743698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97WO-US20069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ω
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infectivity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIV infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Starovasnik MA;
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RESULT 6
AAY31955
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               XXX
                                                       δÃ
밁
                                                                                                                                                                                                                                                                                                                                                             The present sequence represents an N- and C-terminal modified peptide, designated T-20 (or DP-178), corresponding to amino acids 638-673 of the transmembrane protein 941 of HIV-1 LAI isolate.

The invention relates to methods for the synthesis of peptides, con particular T-20 and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T20-like peptide. The invention of the side chains to yield the final T-20 or T-20-like peptide. The invention calso relates to individual peptide fragments (see ANY31956-73) which car as intermediates in the synthesis of peptides of interest (e.g. T-20), and to particular groups of peptide fragments which act as intermediates in the synthesis of the peptide of interest. The intermediates in the synthesis of the peptide fragments which act as intermediates in the synthesis of the peptide of interest. The intermediates in the large scale accommission production of high
                                                                                                                                                        Query Match
Best Local
                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic peptide T-20 (DP-178).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Modified-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY31955 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T-20 like peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 methods of peptide synthesis, particularly used to produce T-20 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-591038/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kang M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TRIM-) TRIMERIS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9948513-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                             method allows for the
                                                                                                                           Local Similarity 100 les 36; Conservative
                         1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
   YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bray B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 102; 120pp; English.
                                                                                                                                                                                                                                                      36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0045920.
98US-0071877.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lichty M,
                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                large scale,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36
                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mader C,
                                                                                                                              Score 195; DB 20;
Pred. No. 4.1e-17;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                       economical production
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Merutka G;
         36
                                                                                                                                    Indels
                                                                                                                                                                                               Length
                                                                                                                                                                                                  36;
                                                                                                                                                                                                                                                                                                                                                          of high
                                                                                                                                    0;
                                                                                                                                    Gaps
                                                                                                                                        0,
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RESULT 7 AAY31974

Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation; chemoattractant.

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RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X PT X RX
                                                                                                                                                                                                                                       망
                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents a peptide, designated T-20 (or CP-178), that corresponds to amino acids 638-673 of the CC transmembrane protein 9p41 of HIV-1 LAI isolate. The invention CC relates to methods for the synthesis of peptides, in particular CC chand N-terminal modified T-20 (see AAV31955) and T-20-like peptides. CC The method involves synthesizing specific side-chain protected CC peptide fragment intermediates (see AAV31956-73) of T-20 or a CC peptide fragment intermediates (see AAV31956-73) of T-20 or a CC followed by deprotection of the side chains to yield the final T-20 or T-20-like peptide. The invention also relates to individual CC peptide fragments which act as intermediates in the synthesis of CC peptide fragments which act as intermediates in the synthesis of CC peptide fragments which act as intermediates in the synthesis of CC the peptide of interest (e.g. T-20), and to particular groups of CC the peptide of interest. The method allows for the large scale, CC conomical production of high purity peptides.
B
                                                                                                                                                                                                                                                                                                   Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 36; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV-1 LAI gp41 T-20 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY31974;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY31974 standard; Peptide; 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Methods of peptide synthesis, particularly used to produce T-20 T-20 like peptides –
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9948513-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-591038/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kang M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TRIM-) TRIMERIS INC
                                                                                             23-FEB-2001
                                                                                                                            AAB52655;
                                                                                                                                                          AAB52655 standard;
                                                            T20/DP178 peptide fragment #33.
                                                                                                                                                                                                                                                     1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                     YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DP-178; HIV-1 LAI; gp41; peptide synthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bray B,
                                                                                                                                                                                                                                                                                                                                                                   36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page 9; 120pp;
                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                   AΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0045920.
98US-0071877.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lichty M,
                                                                                                                                                          Peptide; 36 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mader C,
                                                                                                                                                                                                                                                                                                     Score 195; DB 20;
Pred. No. 4.1e-17;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Merutka
                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                       36;
                                                                                                                                                                                                                                                                                                          0
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                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is a peptide fragment of T20/Dp178. T20/Dp178 in the present sequence is a peptide fragment of T20/Dp178. T20/Dp178 in the lical segment of the ectodomain of HIV-1 protein gp41. T20/Dp178 illocated in the carboxyl terminus of the gp41 ectodomain. gp41 plays critical role in the fusion of HIV-1 and host cell membranes. T20/Di interacts with members of the formyl peptide receptor (FPR) family a thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
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WPI; 2000-656493/63
                      Wang
                                             (USSH)
                                                                     05-MAY-1999;
                                                                                           05-MAY-2000;
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                                                                                                                                         WO200066622-A1
                                                                                                                                                               Human immunodeficiency
                                                                                                                                                                                        chemoattractant.
                                                                                                                                                                                                   Antiinflammatory; formyl peptide rec
                                                                                                                                                                                                                                   T20/DP178 peptide
                                                                                                                                                                                                                                                             23-FEB-2001
                                                                                                                                                                                                                                                                                     AAB52688;
                                                                                                                                                                                                                                                                                                         AAB52688 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12; Page 24; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antagonist is used to modulate inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Administration of peptide agents with a sequence partial-length T20/DP178 or T21/DP107 formyl pept
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                                             US DEPT HEALTH & HUMAN
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                     Oppenheim
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larity 100.0%;
Conservative (
                                                                                          2000WO-US12371.
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                                                                                                                                                                                                  ry; T20/DP178; gp41 ectodomain; HIV-1 fusion; receptor family; FPR; inflammatory response
                                                                    99US-0132686
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                                                                                                                                                                                                                                      fragment #66.
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Pred. No. 4.1e-17;
; Mismatches 0;
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                   Gong W,
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T20/DP178
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The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
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                                                                                                                                                                                                                                                                                                                                                                                    Administration of peptide agents with a sequence corresponding partial length T20/DP178 or T21/DP107 formyl peptide receptor
                                                                                                                                                                                                                                                                                                          Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-FEB-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12; Page 25; 148pp; English
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                                                                                                                                                                                                                                                                                                                                                                  antagonist
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Similarity 100.0%;
36; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US DEPT HEALTH & HUMAN SERVICES
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Pred. No. 4.1e-17;
                                                                                                                                                                                                                                                                                                                                                                  inflammation
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                                                                                (the heptad repeat region), or can correspond or mimic the C-helical domain (the transmembrane-proximal amphipathic alpha-helical segment), or the 9p41 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three 9p41 proteins. The peptides can be administered either singly or as a combination (particularly a combination of N-helical and C-helical peptides), and can be multimerised. For example, N- and C-helical domain peptides can
                                                                                                                                                                                                            claimed peptides derived from the C-helical domain of the gp41 envelope glycoprotein from a variety of HYV-1 isolates. The invention relates to raising a neutralising antibody response to a broad spectrum of HIV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or mimics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or mimic the coiled coil solution structure of the N-helical domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gp41 transmembrane-proximal amphipathic alpha-helical segment;
core 6-helix bundle; viral entry inhibition; immunogenic;
antibody; humoral response; broad spectrum vaccine; anti-HIV;
envelope glycoprotein; prophylaxis; therapy.
                                                                                                                                                                                                                                                                                                                                                           Sequences AAB14532-B14534 and AAB14569-B14602 represent specifically
                                                                                                                                                                                                                                                                                                                                                                                                  Claim 13; Page 12; 97pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                  comprises administering a polypeptide capable of forming a stable coiled-coil solution structure \dot{\phantom{a}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Raising neutralizing antibody response to human immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-JAN-1999; 99US-0115404
07-JAN-2000; 2000US-0480336
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               be alternately linked together to form a peptide which mimics the core 6-hellx bundle. Administration of the peptide(s) generates a humoral response, with the production of antibodies against gp41 structures involved in viral entry. As these portions of gp41 are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (WEIS/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gp41 C-helical domain;
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 such antibodies
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 may be effective against a
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Pred. No. 4.1e-17;
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RESULT 12
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                                                polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptides are any prevention of a disease. The core polypeptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides are bioactive peptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor, angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY8651-Y90055 represent core anti-fusogenic treatments. Sequences AAY8651-Y90055 represent core
                                                                                                                                                                                                                   The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HLV-1, HLV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; vanti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY88665 standard; peptide; 36 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             raised against entry-relevant gp41 structures may also be used therapeutically and as tools to further elucidate the mechanism of HIV
                                                                                                                                                                                                                                                                                                                                                                                          A new hybrid polypeptide with enhanced pharmacokinetic properties
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polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends and form hybrid polypeptides.
                                                                                                                                                                                                                                                                                                                                                                         comprises enhancer
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36; Conser
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                                                                                                                                                                                                                                                                                                                                     Page 21;
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Pred. No. 4.1e-17;
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                                                                                   The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (9941) protein sequences, cc especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the CC pharmacokinetic properties such as increasing the half-life of any core colypeptide that they are linked to. The core polypeptides are any core colypeptide that may be introduced into a living system and that can cc function as a pharmacoligically useful peptide for the treatment or cc polypeptide that may be introduced into a living system and that can cc interleukin, interferon, colony stimulating factor, hormone or cc angiogenic factor. The peptides of the invention can be used for candiogenic treatments. Sequences AAY88651-Y90055 represent core colypeptide fragments that can be used in the invention. Some sequences candiogenic treatments that can be used in the invention.
                                                                                                                                                                                                                                                                                                                                                      ВX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Retrovirus; hybrid polypeptide; enhancer; gp41; envelope proteir HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 22; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                          A new hybrid polypeptide with enhanced pharmacokinetic properties comprises enhancer sequence \mbox{-}
                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-136792/12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Core polypeptide fragment T No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Barney S,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            colony stimulating factor; hormone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-MAY-2000 (first entry)
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                                          Local
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                           36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
36; Conserv
                                          Similarity
                                                                                                          hybrid polypeptides.
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                                                                                   36 AA;
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                          Conservative
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                                          Pred. No.
                                                     Score 195;
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                       5; DB 21;
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RESULT 14
AAY89135
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                                                             Matches
                                                                              Query Match
Best Local Similarity
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                                                                                                                                                                         anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A new hybrid polypeptide with enhanced comprises enhancer sequence -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon;
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                                                                                                                             Sequence
                                                                                                                                                             and
                                                                                                                                                                                                                       interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used finishibiting viral infection and can be used in anti-viral and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Barney S,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 30; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-136792/12
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                  1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                           form hybrid polypeptides.
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                                                             Conservative
                                                                                                                             ΑA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           factor; hormone;
                                                                             100.0%;
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                                                             0;
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                                                                             Score 195; DB 2
Pred. No. 4.1e-1
                                                             Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pharmacokinetic properties
 36
                                                                                             DB 21;
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                                                             Indels
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RESULT 15 AAY89136

ID . AAY89136

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peptide; 36

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                                                                                                                                                                                                                                                                                           The invention relates to hybrid polypeptides comprising enhancer peptide CC sequence linked to core polypeptides. The enhancer polypeptides are CC derived from various retroviral envelope (gp41) protein sequences, CC especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the polypeptide that they are linked to. The core polypeptides are any core CC polypeptide that may be introduced into a living system and that can CC function as a pharmacoligically useful peptide for the treatment or CC prevention of a disease. The core polypeptides are bioactive peptides content or CC selected from a growth factor, cytokine, differentiation factor, content or CC interleukin, interferon, colony stimulating factor, hormone or CC angiogenic factor. The peptides of the invention can be used for CC inhibiting viral infection and can be used in anti-viral and content core polypeptide fragments that can be used in the invention. Some sequences and the invention. Some sequences and the invention at terminal ends can be used in the invention.
                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                            Matches
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                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                              and form hybrid polypeptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 30; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A new hybrid polypeptide with enhanced pharmacokinetic properties comprises enhancer sequence \boldsymbol{\cdot}
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY89136;
                                                                                                 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                               YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                            1 Similarity
36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Guthrie KI,
                                                                                                                                                                                                                                         36 AA;
                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0082279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US11219.
                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Merutka G,
                                                                                                                                                              0;
                                                                                                                                                                            Score 195; DB 21;
Pred. No. 4.1e-17;
                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anwer MK,
                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lambert DM;
                                                                                                                                                                                               Length 36;
                                                                                                                                                              Indels
                                                                                                                                                              0,
                                                                                                                                                            Gaps
                                                                                                                                                              0;
```

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GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
```

OM protein - protein search, using sw model

Run on: May 16, 2003, 11:04:54; Search time 12.1446 Seconds (without alignments) 284.970 Million cell updates/sec

Title:
Perfect score:
Sequence:

US-09-623-533A-1 195 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

283224 seqs, 96134422 residues

Searched: number of hits satisfying chosen parameters:

283224

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR\_73:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

ZZ	Score	Query Match	Length	DВ	ID	Description
1	195	100.0	851	2 :	S33985	env polyprotein -
2			854	N	32	protein -
ω			856	1	<b>VCLJH3</b>	polyprotei
4	195	100.0	861	_	VCLJLV	polyprotein
5	186	95.4	443	N	C41621	polyprotein
0	186	95.4	856	1	VCLJVL	env polyprotein pr
7	186	95.4	856	_	VCLJ3W	polyprotein
80	186		861		VCLJSC	polyprotein
9	183		357	N	S21994	٥,
10	183	93.8	358	N	S21998	protein
11	182		357	N	S21996	
12	179		847	N	T09448	glycopro
13	179		847	N	S13289	env protein – huma
14	178	91.3	445	N	A41621	env polyprotein M
15	177		358	N	S22002	_
16	177		358	2	S22000	protein
17	177		358	2	S70417	
18	177		852	N	T12016	glycopro
19	177	90.8	859	Н	VCLJMN	~
20	176		357	N	S22004	
21	176		855	۳	VCLJA2	env polyprotein pr
22	174		853	N	S54384	
23	174		855		VCLJZR	env polyprotein pr
24	173		357	N	S22006	$\neg$
25	173		843	Н	H44001	env polyprotein pr
26	172		846	Н	VCLJND	
27	170	87.2	357	N	S21992	elope protein
28	170	87.2	852	Н	VCLJBR	protein -
29	168	86.2	729	_	VCLJKX	env polyprotein pr

RESULT 3 VCLJH3

## ALIGNMENTS

QY 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36	Query Match 100.0%; Score 195; DB 2; Length 854; Best Local Similarity 100.0%; Pred. No. 2e-15; Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	A;Accession: 5.13488 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-854 <obr> C;Superfamily: type E retrovirus env polyprotein</obr>	Nature 348, 69-73, 1990  A;Title: HIV-1 tropism for mononuclear phagocytes can be determined by regions of gpl A;Reference number: \$13288; MUID:91043044; PMID:2172833	31-Oct-1997	RESULT 2	QY 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36	Query Match 100.0%; Score 195; DB 2; Length 851; Best Local Similarity 100.0%; Pred. No. 2e-15; Matches 36; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	A;Status: preliminary A;Molecule type: mRNA A;Residues; 1-85] <car> A;Cross-references: EMBL:Z11530; NID:g60192; PIDN:CAA77628.1; PID:g60199 C;Superfamily: type E retrovirus env polyprotein</car>	submitted to the EMBL Data Library, November 1991 A;Reference number: S33979 A;Accession: S33985		RESULT 1
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polyprotein precursor - human immunodeficiency virus

type

1 (isolate HTLV-III,

BH10

human immunodeficiency virus

type

coat polyprotein

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env polyprotein prec
N;Alternate names: C;Species: human imm
A;Note: host Homo sa
C;Date: 17-May-1985
                                   RESULT
C41621
                                                                                                                                           Ş
                                                                                                                                                                                                                                                        F;517-
F;88,1
F;616,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N; Alternate names: coat polyprotein C; Species: human immunodeficiency virus A; Note: host Homo sapiens (man) C; Date: 17-May-1985 #sequence_revision 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nberger, J.A.; Papas, T.S. Nature 313, 277-284, 1985
env polyprotein P
N;Alternate names:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: Nucleotide sequence of the AIDS virus, LAV. A;Reference number: A90866; MUID:85099333; PMID:2981635 A;Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Wain-Hobson, S.; S
Cell 40, 9-17, 1985
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VCLJLV
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                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: A03975
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-856 < RAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;Genetics:
                                                                                                                                                                                                                                                                                                                          Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; 1-30/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                       517-861/Product: transmembrane glycoprotein #status predicted <TMM> 88,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,41
                                                                                                                                                                                                                                                                                                             31~516/Product: exterior membrane glycoprotein #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Keywords: AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                   Poss-references: GB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l-511/Product: exterior membrane glycoprotein #status predicted <EXT>
l-511/Product: transmembrane glycoprotein #status predicted <TMM>
112-856/Product: transmembrane glycoprotein #status predicted <TMM>
8.136.141.156,160,186.197,230,234.241.262.276,289.295.301,332,339,356,386,392,397,
11,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -30/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    638
                                                                                                             643
                                                                                                                                                                                                                                                        621,630,642,679,755,821/Binding
                                                                                                                                                                                                                                                                                                                                                                                     env
                                                                                                             YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                               YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L.; Haseltine, W.; Patarca,
                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        precursor
s: coat po
                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pe E retrovirus env polyprotein capsid protein; capsid protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sonigo,
 coat
                  human
                                                                                                                                                                                                                                                                                                                                                                                                                     GB:K02013; NID:g326417;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #sequence_revision 17-May-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GB:M15654; GB:K02008; GB:K02009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .S.; Ghrayeb,
 polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                  100
                immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P.; Danos,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human
                                                                                                                                                                                                     .08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunodeficiency virus
                                                                                                                                                                                                  Score 195;
Pred. No. :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 195; DB 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                        site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chang, N.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Livak, K.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cole,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   he AIDS virus,
PMID:2578615
                  virus
                                                                                                                                                                                                                                                        carbohydrate
                                                                                                                                                                                                                                                                                                                                                                                                                     PIDN:AAB59751.1;
                                                                                                                                                                                                    2e-15
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                                                                                                             678
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                type
                                                                                                                                                                                                                     1;
                                                                                                                                                                                   0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alizon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GB:K02010;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Starcich, B Gallo, R.C.;
                  1 (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 856;
                                                                                                                                                                                                                   Length 861;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         type
                                                                                                                                                                                                                                                        (Asn) (covalent)
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                                                                                                                                                                                                                                                                                                                                                                                                                     PID:g326424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (isolate LAV-la)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NID: g326383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-Jul-1999
                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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                                                                                                                                                                                 0;
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N;Contains:
C;Species: h
C;Date: 30-S
                                                      env polyprotein
                                                                         VCLJ3W
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N;Contains: amino enc
C;Species: human immu
A;Note: host Homo sar
C;Date: 11-Feb-1993 #
C;Accession: C41621
                                                                                                                                                                                                                                                                           A;Gene: env
C;Superfamily: type F
C;Keywords: AIDS; cap
F;1-30/Domain: signal
                                                                                                                                                                              C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; polyp C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-511/Product: exterior membrane glycoprotein #status predicted <EXT>
F;512-856/Product: transmembrane glycoprotein #status predicted <TMM>
F;88,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,F;611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; jlycoprotein; immunodeficiency;
F;1-251/Product: coat protein gpl30 (fragment) #status predicted <GP1>
F;252-443/Product: coat protein gpl41 (fragment) #status predicted <GP2>
F;424-443/Domain: transmembrane #status predicted <TMN>
F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GB:M77230; NID:g328631; PIDN:AAB03792.1; A;Note: this virus was isolated from the mother's sexual part C;Genetics:
A;Gene: env
C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; F;1-251/Product: coat protein gp120 (fragment) #status predic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguye
Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
A;Title: Evolution of human immunodeficiency virus type
A;Reference number: A41621; MUID:92107924; PMID:1763038
A;Accession: C41621
                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references:
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
C;Accession: A03974
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                                         Ωy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                        A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: A03974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nature 313, 450-458, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Muesing, M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N; Alternate names:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 env polyprotein precursor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Residues: 1-443 <BUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
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                                                                                                               Query Match
Best Local :
                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
  638
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                                           1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNW 35
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YTSLIHSLIEESQNQQEKNEQELLELDKWANLWNW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                     : 1-856 <M
                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          AMUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             coat polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                GB:K02083; NID:g555008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D.H.; Cabradilla, C.D.; Benton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95.48;
                                                                                                               95.4%;
97.1%;
                                                                                                               Score 186;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 186;
                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-Dec-1993 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PMID:2982104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.1e-14;
                                                                                                             2.4e-14;
                                                                                                                                                                                                                                                                                                                                                                                                PIDN: AAB59873.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1,
                                                                                                                                          DB 1;
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  672
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                                                                             . ;:
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                                                                                                                                     Length 856;
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                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C.V.; Lasky, L.A.; Capon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οf
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AIDS/lymphadenopathy
                                                                                                                                                                                                                                                                                                                                                                                                PID: 9328559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PID: g555015
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;ed <GP1>
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coat protein gp120; coat protein gp41 human immunodeficiency virus type 1, HT -Sep-1988 #sequence\_revision 30-Sep-1988

HIV-1

#text\_change

precursor -

human immunodeficiency virus

type

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R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood and ce
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C; Superfamil
C; Keywords:
F; 1-29/Domai
 A; Molecule type: DNA
A; Residues: 1-357 <STE1>
                                                                                                                                                                    envelope protein gp120/gp41 - human immunodeficiency virus type
C;Species: human immunodeficiency virus type 1, HIV-1
A;Variety: isolate 27B
                                                                                                                           C;Date: 20-Feb-1995 #sequence_revision C;Accession: S21994; S70421
                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Title: Envelope sequences of two new United States HIV-1 A; Reference number: A28922; MUID:88219542; PMID:3369091 A; Accession: B28922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Note: host Homo sapiens (man)
C; Date: 31-Dec-1990 #sequence_r
C; Accession: B28922
                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Gurgo, C.; Guo, H.G.; Franchini, G.; Aldovini, A.; Collalti, E.; Farrell, Virology 164, 531-536, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N; Alternate names: C; Species: human in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
VCLJSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Accession: A247/4
R; Starcich, B.R.; Hahn,
Cell 45, 637-648, 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Gene: env
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-861 <GUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              env polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-856 <STA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Title: Identification and characterization of conserved and A; Reference number: A24774; MUID:86218077; PMID:2423250
                                                                                                                                                                                                                                                                                                                                                                                                                                     ;Superfamily: type E retrovirus env polyprotein
;Keywords: capsid protein; coat protein; glycoprotein; polyprotein; transmembrane prote
;1-29/Domain: signal sequence #status predicted <SIG>
;30-861/Product: env polyprotein #status predicted <EPP>
7,129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,340,356,362,386,396
                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                           Best
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-501/Product: coat protein gp120 #status predicted 502-847/Product: coat protein gp41 #status predicted 87,134,140,151,155,183,197,234,241,262,276,289,295,33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Keywords: coat protein; glycoprotein; polyprotein; transmembrane 1-29/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Accession: A24774
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                   643
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                                                                                                                                                                                                                                                                                               Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            precursor - human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #sequence_revision 31-Dec-1990 #text_change 16-Feb-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В.Н.;
                                                                                                                                                                                                                                                                                                                                                                                       95.4%;
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                                                                                                                                                                                                                                                                                                                                                              Score 186; Ub -.
                                                                                                                                                                                                                                                                                                                                                                      2;
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Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                             20-Feb-1995 #text_change 01-Dec-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      type 1,
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                                                                          blood and cerebrospinal fluid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIV-1
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                                                                                                                                                                                                                                                                                                                                                                                                      Length 861;
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A; Experimental source: A; Note: submitted to t
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Best Local
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A; Molecule type: DNA
A; Residues: 1-357 <ST2>
                                                                                                                                         A; Reference number: A; Accession: $70422
                                                                                                                                                                   R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                           C;Species: human immunodeficiency virus type 1; HIV-1 C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 26-Aug-1999 C;Accession: S70422; S21996
                                                                                                                                                                                                                                                                                                                          envelope protein gp120/gp41 - human immunodeficiency virus type 1 (patient 27L)
C;Species: human immunodeficiency virus type 1; HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references:
C;Superfamily: type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            submitted to the EMBL Data Library, July 1991 A; Description: Distinct populations of HTV-1 A; Reference number: S21990
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A; Residues: 1-140, 'X', 142-312, 'X', 314-357 <STE2>
A; Cross-references: EMBL: x61355; NID: g60179
C; Superfamily: type E retrovirus env polyprotein
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                                              A;Cross-references: EMBL:x61356; NID:g60181; PIDN:CAA43624.1;
                                                                                                                          A; Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000 C;Accession: S21998; S70425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              envelope protein gp120/gp41 - human immunodeficiency virus type
C;Species: human immunodeficiency virus type 1, HIV-1
A;Variety: isolate_28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-358 <STE1>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: S21998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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the EMBL |
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91.7%;
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91.7%;
Data Library,
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No. 2e-14;
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Pred. No. 2e-14;
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                                                 PID:g1067129
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RESULT 14
A41621
     C; Accession: A41621
R; Burger, H.; Weise
                                     C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change 26-Aug-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
C;Accession: S13289
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R;Pang, S.; Vinters, H.V.; Akashi, T.; O'Brien, W.A.; Chen, submitted to the EMBL Data Library, July 1996
Reference number: Z16673
:cession: T09448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            envelope glycoprotein - human immunodeficiency virus type 1 (strain JRFL)
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 24-Nov-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                    R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; E
Nature 348, 69-73, 1990
A;Title: HIV-1 tropism for mononuclear phagocytes can be
A_Beference number: S13288; MUID:91043044; PMID:2172833
ccession: S13289
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   Burger,
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                                                                                                                                                                                                                                                                                                                              Query Match
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Best Local
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Residues: 1-847 <OBR>
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33; Conser
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Flaherty,
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Pred.
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Pred. No. 2.7e-14;
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Pred. No. 1.6e-13;
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   Gulla,
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No. 1.6e-13;
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Nguyen, P.N.;
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   Gibbs,
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Search completed: May 16,

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A;Cross-references: EMBL.X61352; NID:g60186; PIDN:CAA43616.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency virus A;Reference number: $70417; MUID:92144209; PMID:1736940
A;Accession: $70418
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C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein;
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp
F;1-253/Product: coat protein gp120 (fragment) #status predicted <GP1>
F;254-445/Product: coat protein gp41 (fragment) #status predicted <GP2>
F;426-445/Domain: transmembrane #status predicted <TMN>
F;426-445/Domain: transmembrane #status predicted <TMN>
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                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: EMBL:x61352; NID:g60186 C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-333,'X',335-358 <STE2>
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A;Accession: $22002
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R;Steuler, H.; Storch-Hagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: human immunodeficiency virus type 1, HIV-1
A;Variety: isolate 3L
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #t
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A; Residues: 1-358 <STE1>
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: glycoprotein (GP120); Transmembrane glycoprotein
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                                 "Assignment of intrachain disulfide bonds and characterization potential glycosylation sites of the type 1 recombinant human immunodeficiency virus envelope glycoprotein (gp120) expressed Chinese hamster ovary cells.", J. Biol. Chem. 265:10373-10383(1990).
                                                                                                                               DISULFIDE BONDS, AND CARBOHYDRATE-LINKAGE MEDLINE-90285159; PubMed-2355006; Leonard C.K., Spellman M.W., Riddle L., Ha Gregory T.J.;
                                                                                                                                                                                                   Nature
[2]
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NCBI_TaxID=11678;
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MEDLINE-87299196; PubMed-3040055;

Ratner L., Fisher A., Jagodzinski L.L., Mitsu
Gallo R.C., Wong-Staal F.;

"Complete nucleotide sequences of functional
virus.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gallo R.C., Wong-Staal F.;
Submitted (APR-1997) to the
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Envelope polyprotein GP160 precursor [Contains:
91ycoprotein (GP120); Transmembrane glycoproteir
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                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1 (HXB3 isolate) Viruses; Retroid viruses; Retroviridae; Lentivirus NCBI_TaxID=11707;
                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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the European Bioinformatics Institute.
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Shaw G.M., Wong-Staal
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F., Reddy E.P.;
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                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE=95127297;
                                                                                                                                                                                                                                                                                                                                 Viruses;
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                                                                                             SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way fied and this statement is not removed. Usage by and for commercial
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es; Retroid viruses;
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AIDS; Coat protein; Polyprotein; Glycoprotein; Transmembrane;
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"Nucleotide sequence of the AIDS virus,
Cell 40:9-17(1985).
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or send an email to license@isb-sib.ch).
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
glycoprotein (GP120); Transmembrane glycoproteir
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InterPro; IPR000777; GP120.
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MEDLINE=90317877; PubMed=1695254;
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OS Human immunod
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RA Muesing M.A.,
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
                                                                                                                                                                    EMBL; K02083; AAB59873
EMBL; X01762; CAA25903
PIR; A03974; VCLJVL.
HIV; K02083; ENV$PV22.
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                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contents the statement is not removed.
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Capon D.J.;
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Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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Nature 313:450-458(1985).
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NCBI_TaxID=11700;
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MEDLINE=88219542; PubMed=3369091;
Gurgo C., Guo H.-G., Franchini G., Aldo-
Farrell K., Wong-Staal F., Gallo R.C., I
"Envelope sequences of two new United S:
Virology 164:531-536(1988).
-i- MISCELLANEOUS: THE SC ISOLATE WAS T.
1984 IN SOUTHERN CALIFORNIA.
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P05878;
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15-JUL-1999 (Rel. 38, Last annotation update)
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glycoprotein (GP120); Transmembrane glycoproteir
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license@isb-sib.ch).
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InterPro; IPR000777; GI
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Pfam; PF00517; GP41; 1
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MEDITINE=86218077; PubMed=2423250;

Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,

Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., V

"Identification and characterization of conserved a
regions in the envelope gene of HTLV-III/LAV, the 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immunodeficiency virus type 1 (WMJ1 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID-31678;
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                                                                                                                                                                                                                                                                                                                                                         Coat
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999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor (Contains: E
tein (GP120); Transmembrane glycoprotein
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Query Match Best Local S Matches 3

Similarity 94.4 34; Conservative

Score 186; DE Pred. No. 4e-1
2; Mismatches

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus type 1 (SF33 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus.
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HIV; M38427; ENV$SF33.
InterPro; IPR000328; Env_GP41.
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Virol. 64:4016-4020(1990).
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991 (Rel. 17, Last sequence update)
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polyprotein GP160 precursor (Contains: Exterior membrane
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP120);
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "viral determinants of human immunodeficiency virus type 1 T-cell or macrophage tropism, cytopathogenicity, and CD4 antigen modulation.";
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InterPro; IPR000777; GP120.
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HIV; M38428; ENV$SF162.
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R. Salahuddin S.Z., Wong-Staal F., Gallo R.C., Par "Genetic variation in HTLV-III/LAV over time in at risk for AIDS.";
Science 232:1548-1553(1986).
-!- MISCELLANEOUS: ISOLATES WMJ1, WMJ2, AND WMJ BLOOD SAMPLES SEQUENTIALLY TAKEN FROM A TWO WAS PERINATALLY INFECTED BY HER MOTHER.
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                                                                                                                                                                                                                                 the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comenties requires a license agreement (See http://www.ich-nit.com
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Envelope polyprotein GP160 precursor [Contains: Exterior glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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InterPro; IPR000777; GP120.
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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M17449; ENV$MN
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FT CARBOHYD 612 612 N-LINKED (GLCNAC. .) (POTENTIAL).
FT CARBOHYD 617 617 N-LINKED (GLCNAC. .) (POTENTIAL).
FT CARBOHYD 638 638 N-LINKED (GLCNAC. .) (POTENTIAL).
FT CARBOHYD 816 816 N-LINKED (GLCNAC. .) (POTENTIAL).
SO SEQUENCE 856 AA; 97140 MW; D197D809940BE732 CRC64;

Query Match
Best Local Similarity 88.9%; Score 177; DB 1; Length 856;
Best Local Similarity 88.9%; Pred. No. 5e-14;
Matches 32; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Qy 1 YTSLIHSLIEESQNQOEKNEQELLELDKWASLWNWF 36

Qy 1 YTSLIHSLIEESQNQOEKNEQELLELDKWASLWNWF 674

Search completed: May 16, 2003, 11:13:31

Job time: 7.07229 secs
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AAY89777 AAY89982 AAY89983 AAY89999 AAU70179 AAU70741 AAB82961

HIV viral envelope HXB2 transmembrane Anti-HIV peptide T AAY89136 AAY89242 AAY89424

AAY89692 AAY89735

HIV-1 isolate LAI
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AAG67039 ABB00024 ABB00087 ABB00088 ABB00494 ABB00495

HIV-1 gp41 peptide
HIV-1 gp41 peptide
HIV-1 gp41 peptide
Biotin-labelled HI
Viral DP178/107-1i
Viral DP178/107-1i
Viral DP178/107-1i

ABB01143 ABB01185 ABB01391 ABB01392

ABB01414 ABB01488

Fluorescein-labell
Viral Dp178/107-li
Viral Dp178/107-li
Viral Dp178/107-li
Viral core polypep
Viral core polypep

ALIGNMENTS

ABB00832 ABB01100

ABB00600 ABB00626 ABB00627 ABB00628

Viral DP178/107-1i
RSV F1 protein DP1
Viral DP178/107-1i
Viral DP178/107-1i
Viral DP178/107-1i
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Maximum Match 100%
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3: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:*

4: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*

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                                                                                                                                                                                                                                                                                   SUMMARIES
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DP-178 derived fro DP178 corresponds HIV-1 derived pept SEQ ID NO. 108 fro SEQ ID NO. 1 from Synthetic peptide HIV-1 LAI gp41 T-2 T20/DP178 peptide T20/DP178 peptide T20/DP178 peptide
                                                                                                                                                                                                                    Description
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07-JUN-1993;	07-JUN-1994;		22-DEC-1994.		WO9428920-A.				Modified-site				Modified-site	Key		Synthetic.		alpha helix; le	human immunodef	antiviral activ		DP-178 derived		24-AUG-1995 (f		AAR64364;		AAR64364 standa	AAR64364
93US-0073028.	94WO-US05739.						or macromolecular carrier gp. attached"	<pre>/note= "optionally has a carboxyl, amido, hydro</pre>	38	macromolecular carrier qp. attached"	9-fluorenylmethoxy-carbonyl, hydrophobic	<pre>/note= "optionally has an amino, acetyl,</pre>	1	Location/Qualifiers				alpha helix; leucine zipper; DP-185.	human immunodeficiency virus; transmembrane protein; gp41;	antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI;		DP-178 derived from HIV-1 isolate LAI has antiviral activity.		(first entry)				AAR64364 standard; Peptide; 36 AA.	

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RESULT 2
AAR98398
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR64364 is designated DP-178, and corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein protein interactions, and possess anti-viral activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission to uninfected cells, and can also be used as type and/or subtype specific
                                                                                                                                                                                                                                                                                                                                    Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; .PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Computer search generated synthetic peptides -
                                     sequence search motif
                                               Inhibiting viral transmission, isolated peptide recognised by
                                                                                      WPI; 1996-309517/31
                                                                                                                Matthews
                                                                                                                           Barney SO,
                                                                                                                                                                                          06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                20-DEC-1995;
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                                                                                                                                                                                                                                                                                   WO9619495-A1.
                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                       DP178 corresponds
                                                                                                                                                                                                                                                                                                                                                                                                                17-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR98398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAR98398 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diagnostic tools.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV transmission
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Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYDU-) UNIV DUKE
                                                                                                                                                   (TRIM-) TRIMERIS INC. (UYDU-) UNIV DUKE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity
35; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bolognesi, Wild CT;
         Fig 1; 471pp;
                                                                                                              Bolognesi DP,
Petteway SR,
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                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                          95US-0470896.
94US-0360107.
                                                                                                                                                                                                                                95WO-US16733
                                                                                                                                                                                                                                                                                                                                                                                       to residues 638-673 of HIV-1(LAI) gp41
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97.2%;
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            English
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                                                                                                               Lambert DM, Wild CT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 193; DB 16; Pred. No. 6.1e-17;
                                                e.g. HIV or
an ALLMOTI5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                             Langlois AJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36
                                                 RSV, to a cell - using
, 107x178x4 or PLZIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

36

Matches

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequences given in AAR98398-408 represent peptides which exhibit antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide structures. These peptides are recognised by the ALLMOTIS, 107x178x4 and PLZIP search motifs. These peptides may be used to inhibit the transmission of a virus, pref. HIV, influenza virus, or hepatitis B virus, to a cell.
                                                                                                                                                                                                                                                                                          Compsns. contg. DP-178 or DP-107 in combination with other therapeutic agent - useful for treatment of HIV infection, esp. by inhibiting replication or transmission of HIV.
                                                                      Sequence
                                                                                                                      reverse transcriptase, viral protease, cytokine, glycosylation or viral mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting viral replication or inhibiting transmission. They may
                                                                                                                                                                       AAW17011 represents a peptide designated DP-178, a peptide derived from HIV type 1 glycoprotein 41 (gp41) transmembrane protein. The peptide corresponds to residues 638-673 of gp41. DP-178 and its derivatives are used in combination with a therapeutic agent, e.g. a
                                                                                                                                                                                                                                                             Claim 2; Figure 1; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9640191-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type 1 LAI isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV; SIV: human; simian immunodeficiency virus; glycoprotein transmembrane; antiviral; DP-178; DP-107; vaccine; inhibition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1 derived peptide useful for treatment of HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW17011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW17011 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                    also be used in vaccines for protecting against HTV infection
                                                                                                                                                                                                                                                                                                                                                                    WPI; 1997-099886/09
                                                                                                                                                                                                                                                                                                                                                                                                     Johnson RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                       (TRIM-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             replication; transmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
 l Similarity
35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                       TRIMERIS INC
                                                                      36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                     Lambert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                  99.0%;
97.2%;
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97.2%;
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Score 193; DB 18;
Pred. No. 6.1e-17;
1; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 193; DB 17;
Pred. No. 6.1e-17;
1; Mismatches 0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36
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                                  Length 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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RESULT 4 AAY22912

AAY22912 standard; Peptide;

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CCCCCXXqqqXXXXqqXQCCCCCXXXqqXXXXXQCCCCCXXXqqqXXXXqq
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                                                                      Matches
                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                           (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY228871, AAY22880, AAY22888 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds.
                                                                                                                                                                                           uses for the constrained helical peptides are in affinity purification of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable
                                                                                                                                                                                                                                                                                     infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention of infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9820036-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY22912
                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 233-234; 279pp; English.
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06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-NOV-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Braisted A, Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunoglobulin purification; epitope mimic.
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                                                                                       Local
                                  1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                       Similarity
                                                                                                                                                                           "floppy"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              108
                                                                                                                                             36 AA;
                                                                      Conservative
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96US-0743698
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                                                                                     99.0%;
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                                                                                                                                                                             or proteins.
                                                                                    Score 193; DB 19;
Pred. No. 6.1e-17;
                                                                    Mismatches
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                                                                      0,
                                                                                                     Length
                                                                      Indels
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                                                                                                          36;
                                                                      0,
                                                                    Gaps
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В Ş

Matches Query Match

Local Similarity nes 35; Conser

Conservative

99.0%;

Score 193; DB 19; Pred. No. 6.1e-17; Mismatches

Length 36; Indels

0;

0,,

Gaps

0

1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

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RESULT 5
AAY22805
ID AAY2
 PF
                                                                                                                                                                                                                      (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY228871, AAY22880, AAY22888 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds. The constrained helical peptides are used to treat or prevent HIV
                                                 of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable
                                                                                                                             infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus gp41 protein, useful in vaccines for treatment and prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV: gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY22805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY22805 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-MAY-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-AUG-1999
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 143-144; 279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Braisted A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-NOV-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                     Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC
                                 "floppy" peptides
 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0876698.
96US-0743698.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   McDowell RS,
                                 or proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Phelan JC,
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RESULT 6
AAY31955
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                                                                  Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic peptide T-20 (DP-178).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY31955
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 102; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-591038/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kang M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY31955 standard; Peptide;
                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Methods of peptide synthesis, particularly used to produce T-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-MAR-1999;
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 ш
                                 1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            like
                                                                                                                                                                    peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bray B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peptides
                                                                                                                                   36 AA;
                                                                  Conservative
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98US-0071877
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lichty M,
                                                                                99.0%;
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                                                                                Score 193; DB 20; Length 36; Pred. No. 6.1e-17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA
                                                                  Mismatches
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RESULT 7 AAY31974

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AAB52655
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Tq
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                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                             T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T-20-like peptide, followed by deprotection of the side chains to yield the final T-20 or T-20-like peptide. The invention also relates to individual peptide fragments which act as intermediates in the synthesis of peptides of interest (e.g. T-20), and to particular groups of peptide fragments which act as intermediates in the synthesis of the peptide of interest. The method allows for the large scale, economical production of high purity peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents a peptide, designated T-20 (or DP-178), that corresponds to amino acids 638-673 of the transmembrane protein gp41 of HIV-1 LAI isolate. The invention relates to methods for the synthesis of peptides, in particular C- and N-terminal modified T-20 (see AAY31955) and T-20-like peptides. The method involves synthesizing specific side-chain protected peptide fragment intermediates (see AAY31956-73) of T-20 or a peptide fragment intermediates (see AAY31956-73) of T-20 or a
Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation; chemoattractant
                                                                       T20/DP178 peptide fragment #33.
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV-1 LAI gp41 T-20 peptide
                                                                                                               23-FEB-2001 (first entry)
                                                                                                                                                   AAB52655
                                                                                                                                                                                      AAB52655 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Methods of peptide synthesis, particularly used to produce T-20 _{
m T-20} like peptides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-591038/50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TRIM-) TRIMERIS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis.
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                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 35; Conserv
                                                                                                                                                                                                                                                                              1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                                                                                                                                                                                                                                                                                                36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 9; 120pp; English.
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                                                                                                                                                                                                                                                                                                                                                         Conservative
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98US-0071877
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                                                                                                                                                                                                                                                                                                                                                                          99.0%;
97.2%;
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                                                                                                                                                                                                                                                                                                                                                                         Score 193; DB 20
Pred. No. 6.1e-17
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RESULT 9
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Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a. critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
WPI; 2000-656493/63
                                                                                                                                                                                                                                            T20/DP178
                                                                                                                                                                                                                                                                                                                      AAB52688 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antagonist is used to modulate inflammation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Administration of peptide agents with a sequence correspondin partial-length T20/DP178 or T21/DP107 formyl peptide receptor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human immunodeficiency virus type 1.
                                                                       05-MAY-1999;
                                                                                                                                                                    Human immunodeficiency virus
                                                                                                                                                                                                      Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response
                                                                                                                                                                                                                                                                     23-FEB-2001
                                                                                             05-MAY-2000;
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                                              US DEPT HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oppenheim
                    Oppenheim
                                                                                                                                                                                                                                           peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36
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                                                                                                                                                                                                                                                                     (first entry)
                                                                                             2000WO-US12371.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
                                                                     99US-0132686
                                                                                                                                                                                                                                           fragment
                                                                                                                                                                                                                                                                                                                    Peptide;
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97.2%;
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Pred. No. 6.1e-17;
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                      Gong W,
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                      Murphy PM
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                                                                                                                                                                                                       up-regulation;
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RESULT 10
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chemoattractant and activator of human peripheral blood (but not T cells). The present peptide can be used to motinflammatory response in a subject.
                                       The present sequence is a peptide fragment of T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent
                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                       Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antiinflammatory; T20/DP178; formyl peptide receptor famil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 12;
                                                                                                                                             Claim
                                                                                                                                                                                                                                                             Wang JM,
                                                                                                                                                                                                                                                                                                                      05-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chemoattractant.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB52818
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP17
                                                                                                                                                                                                                                                                                                                                                   05-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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                                                                                                                                                                                                                                 2000-656493/63
                                                                                                                                             14;
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                                                                                                                                                                                                                                                                                           SD
                                                                                                                                                                                                                                                              Oppenheim JJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 25; 148pp; English
                                                                                                                                             Page 40;
                                                                                                                                                                                                                                                                                           DEPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ry; T20/DP178; gp41 ectodomain; HIV-1 fusion; receptor family; FPR; inflammatory response
                                                                                                                                                                                                                                                                                                                      99US-0132686
                                                                                                                                                                                                                                                                                           HEALTH &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fragment #97.
                                                                                                                                            148pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
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97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          is a peptide fragment of T20/DP178. T20/DP178 is a
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                                                                                                                                                                                                                                                                                           HUMAN
                                                                                                                                             English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36
                                                                                                                                                                                                                                                                                         SERVICES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193;
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6.1e-17;
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                                                                                                                                                                                                                                                           Murphy PM;
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               to modulate an
                              phagocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   up-regulation;
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RESULT 11
AAB14533
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          CC of HIV (human immunodeficiency virus) strains and isolates, comprising CC the administration of a peptide which corresponds to or mimics highly CC conserved portions of gp41 which are important in mediating the process CC of viral entry into host cells. Such peptides can correspond to or CC (the heptad repeat region), or can correspond or mimic the C-helical code in the transmembrane-proximal amphipathic alpha-helical segment), CC or the gp41 core 6-helix bundle, which is formed by the interaction CC of the N- and C-helical domains of three gp41 proteins. The peptides CC can be administered either singly or as a combination (particularly a CC combination of N-helical and C-helical peptides), and can be miltimerised. For example, N- and C-helical domain peptides can combination of the N-helical and C-helical domain peptides the CC be alternately linked together to form a peptide which mimics the CC be alternately linked together to form a peptide so generates a cCC humoral response, with the production of the peptides against gp41 are well correctived sinvolved in viral entry. As these portions of gp41 are well
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Best Local
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                                                                                                                                                                                                                                                                                                                                       Sequences AAB14532-B14534 and AAB14569-B14602 represent specifically claimed peptides derived from the C-helical domain of the gp41 envelope 91ycoprotein from a variety of HIV-1 isolates. The invention relates to raising a neutralising antibody response to a broad spectrum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Raising neutralizing antibody response to human immunodeficiency virus comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gp41 transmembrane-proximal amphipathic alpha-helical segment;
core 6-helix bundle; viral entry inhibition; immunogenic;
antibody; humoral response; broad spectrum vaccine; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV-1 isolate LAI gp41 C-helical domain residues 643-678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-JAN-1999; 99US-0115404
07-JAN-2000; 2000US-0480336
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (WEIS/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (WILD/) WILD C T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JAN-2000; 2000WO-US00456
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CT,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gp41 C-helical domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WEISS C D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Weiss CD;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 12; 97pp; English.
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may be
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  effective
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range
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               inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-990055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                     polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for
                                                                                                                                                                                                                     especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core
                                                                                                                                                                                                                                                       The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences.
                                                                                                                                                                                                                                                                                                                                                                    A new hybrid polypeptide with enhanced comprises enhancer sequence -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Retrovirus; hybrid polypeptide; enhancer; gp41; envelope proteir HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV strains and isolates. The peptide compositions may be administered as a prophylactic or therapeutic vaccine to generate antibodies which reduce or inhibit the ability of HIV to infect uninfected cells. A composition comprising polycional or monocional antibodies can be administered to reduce HIV infection of uninfected cells. Antibodies raised against entry-relevant gpd1 structures may also be used therapeutically and as tools to further elucidate the mechanism of HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Core polypeptide fragment T No.
                                                                                                                                                                                                                                                                                                                                Disclosure; Page 21; 124pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-136792/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Barney S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAY-1998;
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35; Conserv
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97.2%;
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Pred. No. 6.1e-17;
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factor; cytokine; viral;
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RESULT 13
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                   Query Match
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omprises enhancer sequence -
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Pred. No. 6.1e-17;
Score 193; DB 21;
Pred. No. 6.1e-17;
l; Mismatches 0;
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AAY89136

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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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RESULT 14
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                                                                                                                                                                                     interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                         function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor,
                                                                                                                                                                                                                                                                                                                                                              The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (g941) protein sequences, especially from HIV-1 HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A new hybrid polypeptide with enhanced comprises enhancer sequence -
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1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                         Similarity
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                                                                       99.0%;
97.2%;
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                                                                         Score 193; DB 21;
Pred. No. 6.1e-17;
                                                    Mismatches
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                                                                                                                      Sequence
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                                                                                                                                                              and form hybrid polypeptides.
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                                                                                                                          36 AA;
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                                   Score 193; DB 21;
Pred. No. 6.1e-17;
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рb 1 YTSIIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

Search completed: May 16, 2003, 11:12:05 Job time: 33.4578 secs

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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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197
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            Published_Applications_AA:*
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:/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
:/cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
:/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
:/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
:/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
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:/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
:/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
:/cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
:/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
:/cgn2_6/ptodata
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*
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US-09-854-628-1

0 US-09-854-816-1

0 US-09-854-816-1

0 US-09-854-816-108

0 US-09-848-616-176

US-09-779-451-41

0 US-09-779-451-4
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US-10-059-271-84

US-10-059-271-81

US-10-059-271-82

US-10-059-271-97
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US-10-116-797-1
US-09-493-346-1
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       US-09-854-816-16
US-09-854-816-17
US-09-854-816-18
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Sequence 16, Appli
Sequence 1, Appli
Sequence 10, Appli
Sequence 5, Appli
Sequence 10, Appli
Sequence 11, Appli
Sequence 176, Appli
Sequence 41, Appli
Sequence 41, Appli
Sequence 2, Appli
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Sequence 84, Appli
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Sequence 87, Appl
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Sequence 97, Appl
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181	182	182	182	182	183	183	183	184	186	188	188	188 .	188	189	189	192	192	192	192	192	192	192	192	192	192
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46	269	269	.268	267	269	268	233	268	1231	847	646	619	268	268	36	1186	1101	861	856	853	519	391	345	345	344
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US-09-854-816-109	US-09-854-816-46	US-09-854-816-43	US-09-854-816-41	US-09-854-816-38	US-09-854-816-12	US-09-854-816-9	US-09-854-816-50	US-09-854-816-13	US-10-059-271-94	US-09-476-242-2	US-09-891-609-2	US-09-891-609-4	US-09-854-816-26	US-09-854-816-19	US-09-912-824-1	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1
109,	46,	Sequence 43, Appl	41,	Sequence 38, Appl	Sequence 12, Appl	Sequence 9, Appli			94,	Sequence 2, Appli		4 , P	26,	ς.		Sequence 55, Appl	53,			Sequence 33, Appl				49	Sequence 1, Appli

## ALIGNMENTS

US-09-874-475-16

Sequence 16, Applica Publication No. US20 GENERAL INFORMATION:

Application US/09874475 vo. US20020182592A1

APPLICANT: Petropoulos, Christos J. APPLICANT: Parkin, Neil T. APPLICANT: Whitcomb, Jeanette APPLICANT: Huang, Wei

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS FILE REFERENCE: 2793/65166

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; FEATURE:

NAME/KEY: PEPTIDE

LOCATION: (1)..(36)

OTHER INFORMATION: T-20

US-09-796-202-10
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-116-797-1
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Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/493,346
CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: PATENTIN VEY: 2.0
SEQ ID NO 1
                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.0
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn version 3.1 SEQ ID NO 1
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                   Sequence 10, Application US/09796202 Patent No. US20020068813A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                             APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
FILE REFERENCE: 2048/61010/JPW/SHS
CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Olson, William C
APPLICANT: Maddon, Paul J
TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1
TITLE OF INVENTION: Infection
FILE REFERENCE: 61009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       equence 1, Application US/09493346 iblication No. US20030082185A1 ENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                      ე9-796-202-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                  ORGANISM: unknown
                                                                                                                                                   LENGTH: 36
TYPE: PRT
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97.2%;
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Pred. No. 2.
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Pred. No. 2.2e-16;
   Score 192;
Pred. No. 2
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   2; DB 10;
. 2.2e-16;
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?.2e-16;
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US-09-834-628-1
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                                                                                                               US-09-834-628-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: KIM, KEY-SUN
APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PEPTIDES FOR INHIBITION
FILE REFERENCE: 05823.0198-00000
CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
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                                                                                                                                                                                                           SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1 .
LENGTH: 36
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LENGTH: 36
                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: KR 00-65664 PRIOR FILING DATE: 2000-11-06 NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 77
                                                                                                                         OTHER INFORMATION: Description OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                      FEATURE:
                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                                                                                                                                                 TYPE: PRT
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                                                                    Local Similarity
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             1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                        Conservative
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97.2%;
                                                                     97.5%;
97.2%;
                                                                    Score 192; DB 10;
Pred. No. 2.2e-16;
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Pred. No. 2.2e-16;
                                                                                                                                                          of Artificial Sequence:
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                                                                                 Length 36;
                                                        Indels
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RESULT 8
US-09-854-816-108
JS-09-854-816-108
Sequence 108, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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Best Local Similarity
"a+ches 35; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9-854-816-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 08/965,056
FILING DATE: CURKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: TOZCHIA, PhD., Timothy E.
REGISTRATION NUMBER: 36,700
REFERENCE/DOCKET NUMBER: P1005R2
TELECHMUNICATION INFORMATION:
TELEPHONE: 650/25-9881
                                                                                                                                                                                                                                                                                                                               1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                   1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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CURRENT APPLICATION NATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: CUNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: Linear
MOLECULE TYPE: DP178
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                  NUMBER OF SEQUENCES:
                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
James A. Wells INVENTION: Constrained Helical Peptides and Methods of Making Same F SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INVENTION: Constrained Helical Peptides and Methods of
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                                                                                                                                                                         Andrew C. Braisted
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Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                   J. Kevin Judice
Robert S. McDowell
                                                                                          Melissa A. Starovasnik
                                                                                                             J. Christopher Phelan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             James A. Wells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                          Score 192; DB 10;
Pred. No. 2.2e-16;
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                                                                        ; OTHER INFORMATION: DP178c peptide US-09-848-616-176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-854-816-108
                                                                                                                                                              SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 176
LENGTH: 37
                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 35; Conserva
   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
                                                                                                                                                                                                                                                                          APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Sebbel, Peter APPLICANT: Dunant, Nicolas
                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 650/952-9881
INFORMATION FOR SEQ ID NO: 108:
SEQUENCE CHARACTERISTICS:
                                                                                                               FEATURE:
 Local Similarity
nes 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Torchia, PhD., Timoth
REGISTRATION NUMBER: 36,700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/965,056
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE DESCRIPTION: SEQ ID NO: 108:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: P1005R2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Genentech, Inc
STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                             Bachmann, Martin
Tissot, Alain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: South San
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 36 amino acids
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 Conservative
                 97.5%;
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97.2%;
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Score 192; DB 9;
Pred. No. 2.3e-16;
1; Mismatches 0
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Pred. No. 2.2e-16;
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                                  Length 37;
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1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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                                                                       RESULT 12
US-10-040-349B-2
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                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Human immunodeficiency virus type 1
US-09-779-451-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
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US-09-779-451-41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Human immunodeficiency virus type US-09-779-451-41
GENERAL INFO
APPLICANT:
                                Sequence 2, Application US/10040349B Publication No. US20030082521A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/09779451
Patent No. US20020094521A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 41, Application US/09779451 Patent No. US20020094521A1
                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 4
LENGTH: 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                     Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wild, Carl T.
APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                     RIOR APPLICATION NUMBER: US 60/181,543
RIOR FILING DATE: 2000-02-10
NUMBER OF SEQ ID NOS: 77
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2000-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OID NO 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
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                                                                                                                                              16 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 51
                                                                                                                                                                                                                         Local Similarity nes 35; Conserv
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                                                                                                                                                               1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                 INFORMATION:
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 Robert
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97.2%;
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Pred. No. 2.9e
1; Mismatches
                                                                                                                                                                                                                     Score 192; DB 10;
Pred. No. 3.5e-16;
1; Mismatches (
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2.9e-16;
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US-10-059-271-84
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                                                                                                                                                  RESULT 14
                                                                       Sequence 81, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 84
LENGTH: 221
TYPE: PRT
                                                                                                                                                                                                                                                                               Query Match 97.5
Best Local Similarity 97.5
Matches 35; Conservative
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Publication No.
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                 APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: DE PRIOR FILING DATE: 2001-02-02 NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: REPKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 01-078-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: ALBRE-2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 177
TYPE: PRT
ORGANISM: Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Polypeptide Inducing Antibodies Neutralizing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: Peptide
LOCATION: (1)..(177)
OTHER INFORMATION: polypeptide derived
                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                        131 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
                                                                                                                                                                                                                                        1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       104 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 139
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nes 35; Conser
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   INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/10059271
No. US20030082208A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Krell,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chevalier, Michel
El Habib, Raphaelle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BUDDE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , HEINRICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ECKHARD
                                                                                                                                                                                                                                                                                                                                                                       Description of Artificial Sequence: Synthetic peptide
 PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002-01-31
3ER: DE 101 06
                                                                                                                                                                                                                                                                                            97.5%;
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97.2%;
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Pred. No. 1.5e-15;
1; Mismatches (
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Pred. No. 1.2e-15;
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Indels

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Gaps

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Length 221;

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FILE REFERENCE: ALBRE-22:
CURRENT APPLICATION NUMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 82
LENGTH: 254
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Ver. 2.1

SEO ID NO 81

LENGTH: 232

TYPE: PRT

ORGANISM: Artificial Sequence
FEATURE:
COTHER INFORMATION: Description of Artificial Sequence: Synthetic
US-10-059-271-81
                                                                                                          QΥ
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US-10-059-271-82
                                                                         망
Search completed: May 16, 2003, 12:10:24
Job time: 15.759 secs
                                                                                                                       Query Match
Best Local Similarity 97.2
Watches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 97.2
Watches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 82, Application US/10059271 Publication No. US20030082208A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                   OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide 10-059-271-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: BEING IMMOBILIZED FILE REFERENCE: ALBRE-22 CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97.5%;
                                                                                                                                                               97.5%;
97.2%;
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Pred. No. 1.6e-15;
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Pred. No. 1.7e-15;
1; Mismatches (
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length:
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2: /cgn2_6/ptodata/1,

3: /cgn2_6/ptodata/1,

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6: /cgn2_6/ptodata/1,
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US-09-082-279B-603

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US-09-082-279B-705

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US-09-082-279B-1161
                                                                                                                                                    US-08-486-099-1

US-09-071-877-1

US-08-360-107A-1

US-08-360-107A-1

US-08-484-223B-1

US-08-919-597-1

US-08-915-668A-1

US-08-485-551A-1

US-08-485-551A-1

US-08-485-264A-1

US-08-852-279B-15
                    US-09-045-920-1
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9-082-279B-1121
9-082-279B-1161
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	37	37	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	US-09-082-279B-775	US-09-082-279B-771	US-08-255-208A-1	US-09-315-304B-1486	US-09-315-304B-1470	US-09-315-304B-1469	US-09-315-304B-1161	US-09-315-304B-1121	US-09-315-304B-1076	US-09-315-304B-834	US-09-315-304B-705	US-09-315-304B-631	US-09-315-304B-630	US-09-315-304B-603	US-09-315-304B-498	US-09-315-304B-497	US-09-315-304B-15	US-08-474-349A-413
	Sequence 775, App	Sequence 771, App	Sequence 1, Appli		1470	1469	1161,	Sequence 1121, Ap		Sequence 834, App		•	Sequence 630, App	•	Sequence 498, App	•	~	Sequence 413, App

## ALIGNMENTS

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RESULT 1
US-08-073-028-1
                                                               us-08-073-028-1
    Best Loc
Matches
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                                Query Match
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                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                 CLASSIFICATION.
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZÍ, Laura A.
NAME: COTUZZÍ, LAURA A.
78
                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bolognesi, Dani P.
APPLICANT: Matthews, Thomas J.
APPLICANT: Wild, Carl T.
TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF
TITLE OF INVENTION: TRANSMISSION
                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                           MOLECULE TYPE: peptide
                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 1155 AV
CITY: New York
STATE: New York
                                                                                         TOPOLOGY: unl
                                                                                                                                                                                TELEPHONE: (212) 790
TELEFAX: (212) 869-8
TELEX: 66141 PENNIE
                                                                                                                                                                                                                                                                                                   FILING DATE: 07-JUN-1993
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U
ZIP: 10036
      Local Similarity
les 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1155 Avenue of the Americas
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97.2%;
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Score 192; DB 1;
Pred. No. 3.4e-17;
1; Mismatches 0
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US-08-486-099-1
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                                                                                                                                                                       RESULT 3
                                                                                                            GENERAL
                                                                                                                        Sequence 1, Application US/09071877 Patent No. 6015881
                                                                                                                                                                                                                                                                               Ouery Match
Best Local Similarity
Matches 35; Conserv
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                                                                            APPLICANT: Kang, Myung-Chol APPLICANT: Bray, Brian
         APPLICANT: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS
                                           APPLICANT: Lichty, Maynard APPLICANT: Mader, Catherine
   FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: ur
MOLECULE TYPE:
08-486-099-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Relaction DATA:
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ADDRESSEE: Pennie & Edmonds
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Petteway, Stephen R.
APPLICANT: Langlois, Alphonse J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: New York
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                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
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                                                                                                         INFORMATION:
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Lambert, Dennis M.
                                                                                                                                                                                                                                                                                Conservative
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                             unknown
   7872-050
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                                                                                                                                                                                                                                                                                                97.5%;
97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209
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US-08-360-107A-1
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Best Local Similarity Matches 35; Conserv
                             Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/071,877
CURRENT FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 19
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TYPE: PRT
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                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0.
                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION: NAME: Coruzzi, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
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TELEFAX: 66141 F
                                                                                                                                                                                                                                                                                                                    FILING DATE: 2 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                            TOPOLOGY:
                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 30, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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                                                                                                                                           LENGTH:
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                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                    Coruzzi, Laura A
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1155 Avenue of the Americas
                                                                                                                                            36 amino acids
                                                                                                                                                                                                        : (212) 790-9090
(212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Petteway, Stephen R. Langlois, Alphonse
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Lambert, Dennis M.
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                                                                                              unknown
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20-DEC-1994
                                                                          peptide
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              97.5%;
97.2%;
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Thomas J.
                                                                                                                                                                                                                                                                                                                                                                                 Release #1.0,
                                                                                                                                                                                                                                                          7872-013
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Pred. No. 3.4e-17;
1; Mismatches 0;
              Score 192; DB 3; Pred. No. 3.4e-17;
Mismatches
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                                                                                                                                                US-08-919-597-1
                                                                                                                                                               RESULT 6
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                                                                                               Sequence 1, Application Patent No. 6054265
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (212) 869-9741/88
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                               APPLICANT:
                                                               APPLICANT:
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MOLECULE TYPE:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/484,223B FILING DATE: 07-UN-1995 CLASSIFICATION: 435
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MEDIUM TYPE: Floppy disk
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   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS
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OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: New York
STATE: New York
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                                                                                                                                                                                                                                                                                                                                                                                                   amino acid
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                                                                                                                               Application US/08919597
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                                                                                                                                                                                                                                                                                                                                                                                                                       36 amino acids
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Langlois, Alphonse J.
INTERPRETARY COMPOSITIONS FOR INHIBITION OF
IVENTION: MEMBRANE FUSION-ASSOCIATED EVENTS,
VENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
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                                                              Bolognesi, Dani P. Matthews, Thomas J.
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 Petteway,
                                 Barney, Shawn O.
                                                Wild, Carl T.
                                                                                                                                                                                                                                                                        Conservative
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Lambert, Dennis M.
Petteway, Stephen
                                                                                                                                                                                                                                                                                                                                                                          unknown
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                       97.5%;
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                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                     Length 36;
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Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                   Patent No. 6060065
                                                                                                                                                                                                                                                                                                                      GENERAL
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
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LENGTH: · 36 amino acids
TYPE: amino acid
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864.
TELEX: 66141 PENNIE
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PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/919,597
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: Pennie &
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                             NUMBER OF SEQUENCES:
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                                                                                      COUNTRY:
                                                                                                            STATE:
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VENTION: METHODS AND COMPOSITIONS FOR INHIBITION
VENTION: OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
VENTION: TRANSMISSION
                                                                                         USA
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Lambert, Dennis M.
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                                                                                                                                                                                                                              COMPOSITIONS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS
                                                                                                                                                                                                                 TRANSMISSION
                                                                                                                                                                                                                                                                    Stephen R.
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                                                                                                                                                             Edmonds LLP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Petteway
APPLICANT: Langlois.
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
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                                                                                                         NAME: COTUZZÍ, LAURA A. REGISTRATION NUMBER: 30, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                 APPLICATION NUMBER: US/08/485,551A FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 1155 A CITY: New York
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                                 TELEX:
                                                    TELEFAX:
                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                      ZIP: 10036-2711
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                                 66141 PENNIE
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66141 PENNIE
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                                                                                                                                                                                                                                                                                                                                                                                                                     1155 Avenue of the Americas
                                                    (212) 869-9741/8864
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Langlois, Alphonse J.
Langlois, Alphonse J.
VENTION: METHODS FOR INHIBITION OF MEMBRANE
VENTION: FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS
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Lambert, Dennis M.
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97.2%;
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Pred. No. 3.4e-17;
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Best Local (
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                                                              Matches
                                                                             Best
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TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 10036-2711
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                         TOPOLOGY: unknown MOLECULE TYPE: pept.
                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
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                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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les 35; Conserv
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                                                                             Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
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                               1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
amino acid
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1155 Avenue of the Americas
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VENTION: COMPOSITIONS FOR INHIBITION OF MEMBRANE
VENTION: FUSION-ASSOCIATED EVENTS, INCLUDING EPS
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Matthews, Thomas
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Lambert, Dennis M.
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                                                                Conservative
                                                                                                                                        peptide
                                                                             97.5%;
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97.2%;
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Thomas J.
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Pred. No. 3.4e-17;
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                                                                             Score 192; DB 3; Pred. No. 3.4e-17;
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US-08-554-616-1

Sequence

Application US/08554616

Patent No. 6133418

GENERAL INFORMATION:

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                                                                                                                                                                                                                Patent No. 6228983
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TOPOLOGY: unk
MOLECULE TYPE:
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APPLICATION NUMBER: US 08/073,028
FILING DATE: 07-JUN-1993
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ADDRESSEE: Pennie & Edmonds
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                TITLE OF INVENTION: TITLE OF INVENTION:
                                                                        APPLICANT:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acids
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OPERATING SYSTEM:
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STATE: New York
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Petteway, Stephen R.
Langlois, Alphonse J.
VENTION: COMPOSITIONS FOR INHIBITION OF .
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING VENTION: RESPIRATORY SYNCYTIAL VIRUS TRANSMISSION EQUENCES: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (212) 869-8864/9741
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                                                                                                         Lambert, Dennis M.
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Pred. No. 3.4e-17;
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APPLICANT: Barney, Shawn
APPLICANT: Guthrie, Kelly
APPLICANT: Merutka, Gene
APPLICANT: Anwer, Mohmed
APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
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                                                                    ; OTHER INFORMATION: Core polypeptide US-09-082-279B-15
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                                                                                                                                    SOFTWARE: F.
SEQ ID NO 15
LENGTH: 36
TYPE: PRT
   Query Match
Best Local S
Matches 35
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Best Local Similarity
Matches 35; Conserv
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                                                                                                        FEATURE:
                                                                                                                   ORGANISM: Artificial Sequence
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APPLICATION NUMBER: US/0
FILING DATE: 07-JUN-1995
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TELEPHONE: (212) 790-9090
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STREET: New York
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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     Local Similarity
les 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION:
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1155 Avenue of the Americas
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(212) 869-9741/8864
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                   97.5%;
97.2%;
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                   Score 192;
Pred. No.
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Pred. No. 3.4e-17;
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3.4e-17;
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                                 Length 36;
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1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

Вb

1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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CURRENT APPLICATION UNMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEO ID NO 498
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-082-279B-497; Sequence 497, Application US/09082279B; Patent No. 6258/82;
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RESULT 15
US-09-082-279B-603
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CURRENT FILING DATE: 1998-05-20;
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
O ID NO 497
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                 Query Match
Best Local Similarity
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APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
TITLE REFERENCE: 7872-043
US/09/082,279B
                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 498, Application US/09082279B
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                                                                                                                                                                                                   OTHER INFORMATION: Core polypeptide -09-082-279B-498
                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                  1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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Guthrie, Kelly
Merutka, Gene
Anwer, Mohmed
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Merutka, Gene
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                                                                                                                                                 97.5%; Score 192; DB 4; 97.2%; Pred. No. 3.4e-17;
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Search completed: May 16,
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SEQ ID NO 603
LENGTH: 36
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CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                                                                                                                                  1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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Guthrie, Kelly
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97.2%;
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Pred. No. 3.4e-17
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Post-processing: Minimum Match 0%
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Listing first 45 summaries
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Maximum DB seq length: 2000000000
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Perfect score:
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Gapop 10.0 , Gapext 0.5
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197
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                             sp_plant:*
sp_rodent:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

16	15	14	13	12	11	10	9	8	7	6	ر د	4	ω	2	1	Result No.
188	188	188	192	192	192	192	192	192	192	192	192	192	192	192	192	Score
95.4	95.4	95.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	Query Match I
854	684	122	856	856	856	854	854	852	851	752	752	752	748	747	645	Query Match Length DB
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090178	Q91K06	80XX60	Q74090	Q74599	092877	Q72502	Q85582	089797	Q78243	Q70608	Q70605	Q70604	Q70606	Q70607	Q993A6	ID
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Q9EA89	Q8Q863	Q69990	Q9Q722	Q993B2	Q993B0	Q9XXM9	092937	071974	Q90SM7		Q9IK07	Q91K08	Q91K09	Q91K10	Q91K11	Q9YP48	Q9WJU4	Q9IJY7	8ALI6Ö	Q9IJY9	Q9IJZ0	Q91K03	Q91K04	Q9IK05	09450	Q9YP43	Q91K00	Q78705
Q9ea89	Q8q863	066690	Q9q722	Q993b2	045660	Q9yxm9	092937	071974	Q90sm7	Q9ijz4	Q9ik07	Q91k08	Q9ik09	Q9ik10	Q9ik11	Q9yp48	Q9wju4	Q9ijy7	Q9ijy8	Q9ijy9	Q9ijz0	Q91k03	Q9ik04	Q9ik05	Q9yp50	Q9yp43	Q9ik00	Q78705
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## ALIGNMENTS

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070606;
01-NOV-1996 (TrembLrel. (
01-NOV-1996 (TrembLrel. )
01-DEC-2001 (TrembLrel. )
                                                                       MEDLINE=95127297: PubMed=7826699:
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn
Shaw G., Kong L., Weiss S., Watters D., Gallo R., Blattner W
"Viral variability and serum antibody response in a laborat
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIJINE-95137297; PubMed=7826699;
MEDIJINE-95137297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J.,
Shaw G., Kong L., Welss S., Waters D., Gallo R., Blatt
"Viral variability and serum antibody response in a la
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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 EMBL;
           Submitted
                         Mulder K.E.;
                                                                                                                                                                                       Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                                                                                                          Envelope glycoprotein
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                                     STRAIN-LW881;
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InterPro; IPR000777; GP120.
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PF00517; GP41; 1.
Coat protein; G1ycoprotein; Polyprotein;
Coat protein; 747
ER 747 747
NCE 747 AA; 84250 MW; 732E836A52245F14
ted (JUL-1994) to U12032; AAA76668.
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(TrEMBLrel. 01, Last sequence up
(TrEMBLrel. 19, Last annotation
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97.2%;
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Retroviridae;
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Pred. No. 5.
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                                                                                                                  Blattner W
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Envelope glycoprotein (
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
NON_TER 748 748
SEQUENCE 748 AA; 84224 MW; 56BEDF186C67694B CRC64
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Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviric
NCBI_TaxID=11676;
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Reitz M., Hall L., Robert-Guroff M.,
Shaw G., Kong L., Weiss S., Waters D
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Pfam; PF00517; GP41; 1.
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AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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InterPro; IPR000777; GP120.
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97.2%;
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1; Mismatches
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No. 5.6e-15;
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Q70608;
Q1-NOV-1996
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker infected with HIV type 1 (HTLV type IIIB).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AIDS: Coat protein; Glycoprotein; Polyprotein; Transmembrane. NON_TER 752 752 752 SEQUENCE 752 AA; 84894 MW; 8B30AE894013B45A CRC64;
                                                                                      AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.

NON_TER 752 752

SEQUENCE 752 AA; 84780 MW; 708672A2D0C0E8F8 CRC64;
                                                                                                                             InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120, 1.
Pfam; PF00517; GP41, 1.
                                                                                                                                                                                  Submitted (JUL-1994) to the EMBL/GenBank/DDBJ EMBL; U12035; AAA76670.1; -.
                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=11676;
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InterPro; IPR000777; GP120.
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YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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35; Conser
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                                         Conservative
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                                     Score 192; DB
Pred. No. 5.7e
1; Mismatches
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Pred. No. 5.7e-15;
1; Mismatches 0;
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Q89797;
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Q1-NOV-1996
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Q78243;
MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M.,
Shaw G., Kong L., Weiss S., Waters D
"Viral variability and serum antibod
                                                STRAIN-LW90-2;
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NCBI_TaxID=11676;
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Pfam; PF00517; GP41; 1
AIDS; Coat protein; G1
SEQUENCE 851 AA; 96
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Borsetti A., Saggio I., Verar
"Variability of HIV-1 virus:
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Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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01-DEC-2001
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                                                         SEQUENCE FROM N.A.
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                                                                                                                                 productive clone.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                          1 Similarity
35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                      Immunopharmacol. 3:17-23(1990).
                                                                                                                            glycoprotein
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N., Saggio I., Verani P., Rossi G.;
                                                                                                                                       (TrEMBLrel.) (TrEMBLrel.)
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Federic
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97.2%;
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la3767B9B7E98027 CRC64;
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Lautenberger J., Hahn
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RESULT
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01-NOV-1996
01-NOV-1996
01-DEC-2001
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Buckler C.E., Buckler
Submitted (JUL-1989)
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SEQUENCE FROM N.A.
MEDLINE=86281827; PubMed=3016298;
Gendelman H.E., Koeniç
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InterPro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Envelope p
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STRAIN-LW90-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              infected with HIV type 1 (HTLV type IIIB)."; AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                             Pfam;
                                                                                                                                                                                                                                                                      "Production of acquired imm retrovirus in human and non molecular clone.";
J. Virol. 59:284-291(1986).
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                               SEQUENCE
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Dai L.C., Littaua R.,
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Viruses; Retroid viruses; Retroviridae;
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InterPro; IPR000777; GP120.
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                                        Coat
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                                                 PF00516; GP120; PF00517; GP41;
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35; Conser
  Similarity
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                              protein;
854 AA;
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R., Takahashi K.,
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97124 MW; ABA0A1BF36D5595A
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nonhuman cells transfected with an i
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Pred.
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 192;
No. 6.
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virus type 1 at amino acid 585
CD8+ A24-restricted cytotoxic T
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5.4e-15;
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databases.
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A CRC64;
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RESULT 10
Q72502
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072502;
01-NOV-1996 (TrEMBLrel. 0
01-NOV-1996 (TrEMBLrel. 0
01-DEC-2001 (TrEMBLrel. 1
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01-NOV-1998 (TrEMBLrel.
01-NOV-1998 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
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Pfam; PF00517; GP41; 1
AIDS; Coat protein; Gl
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InterPro;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                      Viruses; Retroid
NCBI_TaxID=57667;
                                                                       Simian-Human immunodeficiency virus.
Simian-Human immunodeficiency virus.
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J. Virol. 59:284-291(1986).
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SEQUENCE FROM N.A. MEDLINE=99098984;
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IPR000777; GP120.
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man H.E., Koenig
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214 H -> 1
530 A -> 2
739 G -> 1
  PubMed=9882298
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97.2%;
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es; Retroviridae; Lentivirus
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> L (IN REF. 2)

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01-NOV-1996
01-NOV-1996
                                                                                                           Submitted (JUN-1996) to the EMBL/GenBank/DDBJ EMBL; D86068; BAA12995.1; -
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein;
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrandard State Coat B56 AA; 97151 MW; C50BE0388FB73659 CRC64;
                                                                                                                                                                                                                                                   (HIV-1) Isolates.";
Virology 174:103-116(1990).
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"Spectrum of Biological Properties
                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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                                                                                                                                                                                                                                                                                                                                                                                            ENV
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J. Virol. 73:976-984(1999).
                                                                                                  SEQUENCE
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                             Similarity
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_T., Halloran M., Fanton J.W., Axthelm M.K., Letvin
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856 AA;
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97.2%;
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97.2%;
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Last sequence up
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Pred. No. 6.
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Pred. No. 6.
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5.5e-15;
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simian-human
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RESULT Q74090

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Q9YXQ8;
01-MAY-1999
01-MAY-1999
01-DEC-2001
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01-NOV-1996
01-DEC-2001
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Pfam; PF00517; GP41; 1
AIDS; Coat protein; Gl
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InterPro; IPRO00328; Env_GP41.
InterPro; IPRO00777; GP120.
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"Spectrum of Biological Properties
(HIV-1) Isolates.";
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Q74090
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Costa L.J., Telles
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NCBI_TaxID=11676;
[1]
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Viruses; Retroid viruses; Retroviridae;
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                                                                                                                          SEQUENCE
                                                                                                                                                                                                                  Transmembrane.
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122 /
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(TrEMBLrel. 10,
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      Conservative
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14767 MW;
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                               95.4%;
94.4%;
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97.2%;
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es; Retroviridae;
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Brindeiro R.,
Score 188; DB Pred. No. 2.7e 2; Mismatches
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Last annotation update)
odominant region (Fragment).
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RESULT 15

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PRELIMINARY; PRT; 684 AA.

AC 091K06;

DT 01-OCT-2000 (TrEMBLrel. 15, Created)

DT 01-DCC-2001 (TrEMBLrel. 19, Last sequence update)

DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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Search completed: May 16, 2003, 11:19:47 Job time: 26.3124 secs
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Best Local Similarity 94.4
Matches 34; Conservative
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EMBL; AF217161; AAF75503.1; -.

InterPro; IPR000328; Env_GP41.

InterPro; IPR00077; GP120.

Pfam; PF00516; GP120; 1.

Pfam; PF00517; GP41; 1.

AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.

SEQUENCE 684 AA; 77266 MW; F9E6F3CCE4D32E10 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-546HC-B6; Gartner S., Liu Y., Tang X.P., McArthur J.C., Scott J.; Gartner S., Liu Y., Tang X.P., McArthur J.C., Scott J.; Analysis of human immunodeficiency virus type 1 gp160 sequences from a patient with HIV dementia: evidence for monocyte trafficking into brain.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11676;
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-i- MISCELLANEOUS: ISOLATES WMJ1, WMJ2, AND WMJ3 WERE OBT BLOOD SAMPLES SEQUENTIALLY TAKEN FROM A TWO-YEAR OLD WAS PERINATALLY INFECTED BY HER MOTHER.
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InterPro; IPR000777; GP120.
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InterPro; IPR000777; GP120.
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01-OCT-1989 (Rel. 12, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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"Nucleotide sequences of gag and env
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Res. Hum. Retroviruses 5:411-419(1989).
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                      EMBL; K02007; AAB59882.1; -.
PIR; A03976; VCLJA2.
HIV; K02007; ENV$SF2.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00516; GP41; 1.
AIDS; Coat protein; Polyprotein
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P03378;
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MEDLIND-85090453; PubMed-2578227;
Sanchez-Pescador R., Power M.D., Barr
Stempien M.M., Brown Shimer S.L., Gee
Levy J.A., Dina D., Luciw P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Eglycoprotein (GP120); Transmembrane glycoprotein
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Science 227:484-492(1985).
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Renard A., Ra
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01-NOV-1998 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains:
glycoprotein (GP120); Transmembrane glycoprotein
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01-NOV-1988
01-NOV-1988
15-JUL-1999
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MEDLIND=86235450; PubMed=3012778;

Hahn B.H., Shaw G.M., Taylor M.E., Redfield R.R., Markham P.D.

Salahhddin S.Z., Wong-Staal F., Gallo R.C., Parks E.S., Parks

"Genetic variation in HTLV-III/LAV over time in patients with
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NCBI_TaxID=11705;
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88.9%;
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es; Retroviridae; Lentivirus.
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01-JUL-1993 (Rel.
15-JUL-1999 (Rel.
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Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,
Parks E.S., Parks W.P., Josephs S.E., Gallo R.C.,
Parks E.S., Parks W.P., Josephs S.E., Gallo R.C.,
"Identification and characterization of conserved
regions in the envelope gene of HTLV-III/LAV, the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE-86218077;
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999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains: Exterior membrane
tein (GP120); Transmembrane glycoprotein (GP41)].
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26, Last sequences 38, Last annotations
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NCBI_TaxID=11690;
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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"Human immunodeficiency virus type 1 cellular host range, replication, and cytopathicity are linked to the envelope
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erPro; IPR000777; GP120.
m; pF00516; GP120; 1.
m; pF00517; GP41; 1.
5; Coat protein; Polyprotein;
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polyprotein GP160 precursor (Contains:
tein (GP120); Transmembrane glycoprotein
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.polyprotein GP160 precursor
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5-JUFEB-1991 (Rel. 17, Last sequence update)
5-JUL-1999 (Rel. 38, Last annotation update)
chvelope polyprotein GP160 precursor (Contains:
hypoprotein (GP120); Transmembrane glycoprotein
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TRANSMEMBRANE GLYCOPROTEIN.

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DENV_HVILM

C Q70626;

T 15-JUL-1998 (Rel. 36, Created)

T 15-JUL-1998 (Rel. 36, Last sequence update)

DT 15-JUL-1998 (Rel. 38, Last annotation update)

DT 15-JUL-1999 (Rel. 38, Last annotation update)

DE Envelope polyprotein GP160 precursor [Contains: Externocursor protein (GP120); Transmembrane glycoprotein (GF120); Transmembrane glycoprote
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                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way field and this statement is not removed. Usage by and for commercial field and this statement is not removed. Biogethy and for commercial
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DT 21-JUL-1986 (Rel. 38, I
DT 15-JUL-1999 (Rel. 38, I
DT 15-JUL-1999 (Rel. 38, I
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Human immunodeficiency virus type Viruses; Retroid viruses; Retrovir NCBI_TaxID=11686;
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GP160 precursor [Contains:
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15-UUL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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Pfam; PF00516; GP120; 1.
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EMBL; AF038399; AAB99976.1;
EMBL; AF033819; AAC82596.1;
HIV; K03455; ENV$HXB2.
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NCBI_TaxID=11706;
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01-FEB-1996 (Rel. 33, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: 91ycoprotein (GP120); Transmembrane glycoproteir
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MEDLINE=85228248; PubMed=2988795;
MEDLINE=85228248; PubMed=2988795;
Crowl R., Ganguly K., Gordon M., Conroy R.,
Shaw G.M., Wong-Staal F., Reddy E.P.;
"HTLY-III env gene products synthesized in lantibodies present in the sera of AIDS patia
Cell 41:979-986(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type 1 (HXB3 isolate) Viruses; Retroid viruses; Retroviridae; Lentivirus.NCBI_TaxID=11707;
                                                                                                                                                                       AIDS;
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InterPro; IPR000777; GP120
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                                                                                                                                                                                                                                                                                           use by non-profit institutions as long modified and this statement is not removed.
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P03375;
                               "Assignment of intrachain disulfide bonds and potential glycosylation sites of the type 1 re immunodeficiency virus envelope glycoprotein (Chinese hamster ovary cells.";
J. Biol. Chem. 265:10373-10382(1990).
                                                                                                                                                                                    MEDLINE=85111123; PubMed=2578615;
Ratner L., Haseltine W., Patarca R., Livak K.J., Starcich Josephs S.F., Doran E.R., Rafalski J.A., Whitehorn E.A., Baumeister K., Ivanoff L., Petteway S.R. Jr., Pearson M.L. Lautenberger J.A., Papas T.S., Ghrayeb J., Chang N.T., Gal
                                                                                            MEDLINE=90285159;
Leonard C.K., Spe.
Gregory T.J.;
                                                                                                                                                  Wong-Staal F.; "Complete nucleotide sequ Nature 313:277-284(1985).
                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE=85111123;
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l Similarity 97.2%;
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Spellman M.W., Rid
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 try is copyright. It is produced through a Institute of Bioinformatics and the EMBL
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Pfam; PF00517; GP41; CAIDS; Coat protein; Pc
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PIR; A03973; VCLJH3.
HIV; M15654; ENV$BH102.
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           AAB52655
AAB52688
AAB52818
                                                                                                                                                                      AAR64364
AAR98398
AAW17011
AAY22912
AAY22805
AAY31955
AAY31974
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chance to have a result being printed,
DP-178 derived fro
DP178 corresponds
HIV-1 derived pept
SEQ ID NO. 108 fro
SEQ ID NO. 1 from
Synthetic peptide
HIV-1 LAI gp41 T-2
T20/DP178 peptide
T20/DP178 peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192
7 .	.7	.7	7	7.	7.	97.5	7.	7.	7.	7.	7.	7.	.7	7.	7.	7.	7.	.7	7.	.7	.7	7.	7.	7.	7.	.7	7.	7	.7	.7	7.	.7	97.5	.7
36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	. 36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21	21	21	21	21	21	21	21	21	21	21	21	21
ABB01970			$\mathbf{u}$	139	ABB01185	ABB01143	ABB01100	ABB00832	ABB00628	ABB00627	ABB00626	ABB00600	ABB00495	ABB00494					96		17	99	28	998	977	973	8969	8942	8924	8913	8913	72	8866	AAB14533
l core polype	ral core polyp	l DP178/107-	al DP178/107-	1 DP178/107-	Fluorescein-labell	al DP178	al DP178	Viral DP178/107-li	al DP178	1 DE	1 DP178/	F1 protein	L DP	DP.	178/107-	in-labelled	1 gp41 pept	gp41	-HIV peptide	transmembra	viral envelop	polypeptide		e polypeptide	e polypeptide	e polypeptide	e polypeptide	e polypeptide	polypeptide	e polypeptide	e polypeptide	e polypeptide	e polypeptide	HIV-1 isolate LAI

## ALIGNMENTS

PR 0			X TO :	XX FFF		FT		FH K				KW a	DE D		××	·	ID A	AAR64364
07-JUN-1993;	07-JUN-1994;	22-DEC-1994.	W09428920-A.		Modified-site		Modified-site	еу	Synthetic.		lnha helivi l	ntiviral activ uman immunode	P-178 derived	24-AUG-1995 (1	AAR04304;		AAR64364 standard;	64
93US-0073028.	94WO-US05739.			<pre>/note= "optionally has a carboxyl, amido, hydrophobic or macromolecular carrier gp. attached"</pre>	macromorecular carrier gp. attached"	9-fluorenylmethoxy-carbonyl, hydrophobic or	<pre>1 /note= "optionally has an amino, acetyl,</pre>	Location/Qualifiers		Section of Four Property Co.	alpha heliv: lencine vinner: DD-185	antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI; human immunodeficiency virus; transmembrane protein; gp41;	DP-178 derived from HIV-1 isolate LAI has antiviral activity.	(first entry)			ard; Peptide; 36 AA.	

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RESULT 2
AAR98398
ID AAR9
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AC AAR9
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AC AAR9
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Query Match
Best Local S
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                                                                                                     Barney SO, bu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ARR64364 is designated DP-178, and corresponds to amino acids 638 to 673 of the HIV-1 isolate LAI transmembrane protein gp41. It forms a putative alpha helix at the C-terminal end of the gp41 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein-protein interactions, and possess anti-viral activity. Homologues of these peptides were identified by a computer assisted peptide sequence search. The peptides inhibits transmission to uninfected cells, and can also be used as type and/or subtype specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Computer search generated synthetic HIV transmission
                                                                                                                                                                                                                                                                                                            Antifusogenic activity; antiviral capability; coiled-coil peptide; ALLMOTI5; 107x178x4; PLZIP search motif; viral transmission; HIV; influenza virus; hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                          DP178 corresponds to residues 638-673 of HIV-1(LAI) gp41
                                                                                                                                                                                                                                                                                                                                                                                                         AAR98398;
                                                                                                                                                                                                                                                                                                                                                                                                                               AAR98398 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnostic tools.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 11;
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                                                                                                                                                                                                                                                                                                                                                                                 17-FEB-1997
                                  Inhibiting viral transmission, isolated peptide recognised by sequence search motif
                                                                                                                                                                             06-JUN-1995;
20-DEC-1994;
                                                                                                                                                                                                                                                                WO9619495-A1
                                                                                                                                                                                                                                                                                     Human immunodeficiency virus type 1.
            Disclosure;
                                                                                                                                                                                                                 20-DEC-1995;
                                                                                                                                                                                                                                         27-JUN-1996
                                                                                                                                            (UYDU-) UNIV DUKE.
                                                                                                                                                        (TRIM-) TRIMERIS INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 132;
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, Wild CT;
                                                                                                        Bolognesi DP,
, Petteway SR,
            Fig
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94US-0360107
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            ۲,
            471pp; English
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                                                                                                                                                                                                                                                                                                                                                                                 entry)
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97.2%;
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                                                                                                          Lambert DM, wild CT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 192; DB 16;
Pred. No. 1.3e-16;
1; Mismatches 0
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                                              e.g. HIV or RSV, to a of an ALLMOTI5, 107x178x4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            peptides
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                                                                                                                      Langlois AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             are inhibitors of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΤJ;
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                                                           cell -
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                                                  PLZIP
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                                                            using
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1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

36

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RESULT 3
AAW17011
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Matches 35
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              structures. These peptides are recognised by the ALLMOTIS, 107x178x4 and PLZIP search motifs. These peptides may be used to inhibit the transmission of a virus, pref. HIV, influenza virus, or hepatitis B virus, to a cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequences given in AAR98398-408 represent peptides which exhib antifusogenic activity, antiviral capability and/or the ability to modulate intracellular processes involving coiled-coil peptide
                                                                                                                                                                                                                                                                    Compsns. contg. DP-178 or DP-107 in combination with other therapeutic agent – useful for treatment of HIV infection, inhibiting replication or transmission of HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV; SIV: human; simian immunodeficiency virus; glycoprotein 41; transmembrane; antiviral; DP-178; DP-107; vaccine; inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV-1 derived peptide useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW17011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW17011 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                     reverse transcriptase, viral protease, cytokine, glycosylation or viral mRNA processing inhibitor or a nucleoside inhibitor. The peptides work by inhibiting viral replication or inhibiting transmission. They may also be used in vaccines for protecting against HIV infection.
                                                                                                                                                      from HIV type 1 glycoprotein 41 (gp41) transmembrane protein. The peptide corresponds to residues 638-673 of gp41. DP-178 and its derivatives are used in combination with a therapeutic agent, e.g.
                                                                                                                                                                                                                                     Claim 2; Figure 1; 84pp; English.
                                                                                                                                                                                                                                                                                                                                   WPI; 1997-099886/09
                                                                                                                                                                                                                                                                                                                                                                                              (TRIM-) TRIMERIS INC
                                                                                                                                                                                                                                                                                                                                                                                                                             07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9640191-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human immunodeficiency virus type 1 LAI isolate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    replication;
                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                  Johnson RM,
                                                                                                                                                                                                         AAW17011
                                                                                                                                                                                                                                                                   inhibiting replication or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \vdash
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
35; Conserv
              Similarity
                                                                                                                                                                                                      represents a peptide designated DP-178, a peptide derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36 AA;
                                                              36 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
Conservative
                                                                                                                                                                                                                                                                                                                                                                  Lambert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      transmission.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                             95US-0481957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           96WO-US09499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97.5%;
97.2%;
             97.5%;
97.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 192; DB 17;
Pred. No. 1.3e-16;
Score 192; DB 18;
Pred. No. 1.3e-16;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for treatment of HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 36;
                                                                                                                                           glycosylation or viral
                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
   Indels
                                    36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
   0,
                                                                                                                                                                                                                                                                                        esp.
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   Gaps
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RESULT 4
AAX72917
ID AAX72
XX
AC AAX7
XX
DT 19-A
XX
DT SEQ
XX
DT SEQ
XX
VAC
XX
VAC
XX
VAC
XX
HIV;
KW HIV;
XX
VAC
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XX
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XX
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Huma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                 Q
                                                                                                                                                 85555555555555555555
                                                                                                                                                                                    CC (HIV). Specifically, AAY22810-Y22910 are derived from 9741 proteins and CC (AIV22903 represent consensus sequences of various sections of the 9741 CC protein). Sequences derived from the peptides are used to produce peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain cresidues with a difunctional linker to produce two amide bonds. CC infection, especially as vaccines that generate antibodies that CC constrained helical peptides are used to treat or prevent HIV CC infection, especially as vaccines that generate antibodies that CC constrained helical peptides derived from several different strains of CC HIV. The antibodies are also useful for diagnosing HIV infection. Other CC uses for the constrained helical peptides are in affinity purification of 11gands (particularly where complete binding protein is not readily CC available, e.g. replacements for protein A in immunoglobulin constrained for groteins are display libraries, or as stable CC forms of "floppy" peptides or proteins.
                                                                     Best Loc
Matches
                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency virus 9p41 protein, useful in vaccines for treatment and prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein a replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 233-234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-NOV-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY22912;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Braisted A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-MAY-1998.
                                                                                        Local
                  1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                 of.
                                                                       l Similarity
35; Conserv
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96US-0743698.
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                                                                                                                                                                             peptides or proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JK,
                                                                                    97.5%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                McDowell RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             279pp; English
                                                                     Score 192; DB 19;
Pred. No. 1.3e-16;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Phelan JC,
 36
                                                                                                       Length 36;
                                                                       Indels
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                                                                     0;
                                                                     Gaps
                                                                     0
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밁 QY

Query Match Matches

Local Similarity hes 35; Conser

Conservative

97.5%;

Score 192; DB 19; Pred. No. 1.3e-16;

DB 19; 0

Length Indels

36

0

Gaps

0;

Mismatches

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RESULT 5
AAY22805
ID AAY2
XX .
AC AAY2
XX
 of ligands (particularly where complete binding protein is not readily available, e.g. replacements for protein A in immunoglobulin purification); as epitope mimics for antibody production; for isolation of synthetic antibody clones from phage display libraries, or as stable forms of "floppy" peptides or proteins.
                                                                                                                                                                                                                        (HIV). Specifically, AAY22810-Y22910 are derived from gp41 proteins of known HIV virus strains (AAY22810, AAY22871, AAY22880, AAY22888 and AAY22903 represent consensus sequences of various sections of the gp41 protein). Sequences derived from the peptides are used to produce constrained helical peptides of the invention. The constrained helical peptide is produced by synthesising an octapeptide in which both terminal amino acids have a side-chain that includes a group able to form an amide bond, and cyclising the octapeptide by reacting the specified side-chain residues with a difunctional linker to produce two amide bonds.

The constrained helical peptides are used to treat or prevent HIV
Sequence
                                                                                                                           infection, especially as vaccines that generate antibodies that prevent viral membrane fusion or infectivity. Vaccines may contain constrained helical peptides derived from several different strains of HIV. The antibodies are also useful for diagnosing HIV infection. Other uses for the constrained helical peptides are in affinity purification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 virus gp41 protein, useful in vaccines of infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-286866/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY22805
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 143-144; 279pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Production of constrained helical peptide(s) by linking side chains on termini of octa:peptide - derived from human immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUN-1997;
06-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIV; gp41 protein; constrained helical peptide; HIV infection; vaccine; antibody; viral membrane fusion; viral infectivity; ligand affinity purification; protein A replacement; immunoglobulin purification; epitope mimic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY22805 standard; Peptide; 36
                                                                                                                                                                                                                                                                                                                                                                                                                     Peptides AAY22805-Y22917 are derived from Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Braisted A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-MAY-1998
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 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Judice JK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
 ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96US-0743698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0876698
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    McDowell RS,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Phelan JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for treatment and prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Starovasnik MA;
                                                     for isolation or as stable
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RESULT 7
AAY31974
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AAY31955
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H
                                                                                                                                                                                                                               The present sequence represents an N- and C-terminal modified peptide, designated T-20 (or DP-178), corresponding to amino acids CG peptide, designated T-20 (or DP-178), corresponding to amino acids CG 58-673 of the transmembrane protein gp41 of HTV-1 LAI isolate. CC The invention relates to methods for the synthesis of peptides, cc in particular T-20 and T-20-like peptides. The method involves synthesizing specific side-chaike protected peptide on a solid support intermediates of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T20-like peptide. The invention calso relates to individual peptide fragments (see AAY31956-73) which act as intermediates in the synthesis of peptides of interest (e.g. critical particular groups of peptide fragments which act as intermediates in the synthesis of the peptide fragments. The invention constitution of the large scale, economical production of high
                                                                                                                        Query Match
Best Local S
Matches 35
                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                      purity peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 102; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  methods of peptide synthesis, particularly used to produce T-20 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-591038/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kang M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-MAR-1998;
01-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T-20; DP-178; HIV-1 LAI; gp41; peptide synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic peptide T-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1999
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                                                                                                                          Local Similarity
les 35; Conserv
                                                              _
                                                                                 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       like peptides
                                                              YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bray B,
                                                                                                                        97.5%;
nilarity 97.2%;
Conservative
                                                                                                                                                                                        36
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98US-0071877
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lichty M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (DP-178).
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                                                                                                                        Score 192; DB 20;
Pred. No. 1.3e-16;
1; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G
                                                                                                                                                        Length
                                                                                                                                                           36
                                                                                                                            0
                                                                                                                            Gaps
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AAB52655
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   Query Match*
Best Local Si
Matches 35;
                                                                                                                                                                                                                                                                                                                                                                                   peptide fragment intermediates (see AN731956-73) of T-20 or a T-20-like peptide on a solid support, coupling the protected fragments in solution to form a protected T-20 or T-20-like peptide. The invention also relates to individual peptide fragments which act as intermediates in the synthesis of peptides of interest (e.g. T-20), and to particular groups of the peptide of interest. The method allows for the large scale, economical production of high purity peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents a peptide, designated T-20 (or pp-178), that corresponds to amino acids 638-673 of the transmembrane protein gp41 of HIV-1 LAI isolate. The invention relates to methods for the synthesis of peptides, in particular C- and N-terminal modified T-20 (see AAY31955) and T-20-like peptides. The method involves synthesizing specific side-chain protected
Antiinflammatory; T20/DP formyl peptide receptor chemoattractant.
                                                             T20/DP178 peptide
                                                                                                                            AAB52655;
                                                                                                                                                         AAB52655 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 9; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Methods of peptide synthesis, T-20 like peptides -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-591038/50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-MAR-1998;
01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T-20; DP-178; HIV-1 LAI; gp41; peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HIV-1 LAI gp41 T-20 peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY31974 standard; Peptide; 36 AA
                                                                                             23-FEB-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9948513-A1
                                                                                                                                                                                                                                   1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                  1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                 Similarity
35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bray B,
                                                                                                                                                                                                                                                                                                                                                              36
                                                                                            (first entry)
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98US-0071877
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              T20/DP178; gp41 ectodomain; HIV-1 fusion; ceptor family; FPR; inflammatory response up-regulation;
                                                             fragment #33
                                                                                                                                                                                                                                                                                                              97.5%;
97.2%;
                                                                                                                                                           36
                                                                                                                                                                                                                                                                                                                 Score 192; DB 20;
Pred. No. 1.3e-16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      particularly used to produce T-20
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RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wang
                    Wang
                                                                                                                                                                                 Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response up-regulation; chemoattractant.
WPI; 2000-656493/63
                                                                   05-MAY-1999;
                                                                                           05-MAY-2000;
                                                                                                                  09-NOV-2000
                                                                                                                                         WO200066622-A1
                                                                                                                                                            Human immunodeficiency virus type
                                                                                                                                                                                                                                   T20/DP178 peptide fragment #66.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antagonist is used
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35; Conser
                                            US DEPT HEALTH & HUMAN
                   Oppenheim JJ,
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97.2%;
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Pred. No. 1.3e
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                   Gong W,
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l.3e-16;
les 0;
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                    Gao J,
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                    Murphy
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RESULT 10
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Best Local S
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The present sequence is a peptide fragment of T20/Dp178 is a healical segment of the ectodomain of HIV-1 protein gp41 T20/Dp178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/Dp178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an inflammatory response in a subject.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is a peptide fragment of T20/DP178. T20/DP178 is a helical segment of the ectodomain of HIV-1 protein gp41. T20/DP178 is located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/op178 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an
                                                                                                                                                                                      Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chemoattractant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antiinflammatory; T20/DF formyl peptide receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T20/DP178 peptide fragment #97.
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                                                                                                                                                         Claim 14; Page 40; 148pp;
                                                                                                                                                                                                                                                      WPI; 2000-656493/63.
                                                                                                                                                                                                                                                                                 Wang JM,
                                                                                                                                                                                                                                                                                                                                               05-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human immunodeficiency virus type 1.
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                                                                                                                                                                                                                                                                                                                (USSH)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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35; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peptide;
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97.2%;
                                                                                                                                                                                                                                                                                 Su S,
                                                                                                                                                           English
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l; Mismatches
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                                                                                                                                                                                                                                                                                 Gong W,
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0;
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Best Local
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                                      domain (the transmembrane-proximal amphipathic alpha-helical segment), or the 9p41 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three 9p41 proteins. The peptides can be administered either singly or as a combination (particularly a combination of N-helical and C-helical peptides), and can be multimerised. For example, N- and C-helical domain peptides can be alternately linked together to form a peptide which mimics the core 6-helix bundle. Administration of the peptide(s) generates a humoral response, with the production of antibodies against 9p41 and the production of the peptide segments.
                                                                                                                                                                                                of HIV (human immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or mimics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or mimic the coiled coil solution structure of the N-helical domain (the heptad repeat region), or can correspond or mimic the C-helical
                                                                                                                                                                                                                                                                                                              Sequences AAB14532-B14534 and AAB14569-B14602 represent specifically claimed peptides derived from the C-helical domain of the gp41 envelope glycoprotein from a variety of HIV-1 isolates. The invention relates to raising a neutralising antibody response to a broad spectrum
                                                                                                                                                                                                                                                                                                                                                                                                                                       Raising neutralizing antibody response to human immunodeficiency virus, comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gp41 transmembrane-proximal amphipathic alpha-helical segment;
core 6-helix bundle; viral entry inhibition; immunogenic;
antibody; humoral response; broad spectrum vaccine; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                         Claim 13;
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07-JAN-2000; 2000US-0480336
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(WEIS/) WEISS C D.
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35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                       Page 12;
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                               involved
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                                                                                                                                                                                                                                                                                                                                                                                                     97pp; English.
in viral entry. As .....
in viral entry be effective
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Pred. No. 1.3e-16;
1; Mismatches 0
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         As these portions ffective against a
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RESULT 12
AAY88665
В
                                          The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (9941) protein sequences. Sequence linked to core polypeptides are inventice properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for anti-fusogenic treatments. Sequences ANR8651-79055 represent core
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusogenic; differentiation factor; interleukin; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               as a prophylactic or therapeutic vaccine to generate antibodies which reduce or inhibit the ability of HIV to infect uninfected cells. A composition comprising polycional or monoclonal antibodies can be administered to reduce HIV infection of uninfected cells. Antibodies raised against entry-relevant gp41 structures may also be used therapeutically and as tools to further elucidate the mechanism of HIV
                                                                                                                                                                                                                                                                                                      Disclosure; Page 21; 124pp; English
                                                                                                                                                                                                                                                                                                                                          comprises enhancer sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  colony stimulating factor; hormone; angiogenic
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                               polypeptide fragments that can be used in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                           Barney S,
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
              those indicated also comprise enhancer fragments at terminal ends
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                                                                                                                                      The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the polypeptide that they are linked to. The core polypeptides are any core polypeptide that may be introduced into a living system and that can concinct a pharmacoligically useful peptide for the treatment or prevention as a pharmacoligically useful peptide for the treatment or core prevention of a disease. The core polypeptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor, colony stimulating factor, hormone or confidence interleukin, interferon, colony stimulating factor, hormone or confidence in treatments. Sequences Anx88651-y90055 represent core colypeptide fragments that can be used in the invention. Some sequences cand form buthed columns that can be used in the invention.
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                              Score 192; DB 21;
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                                                                                                                                                                                                                                                                pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bioactive peptides selected from a growth factor, cytokine, differentiation factor,
                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the
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               Score 192; DB 21;
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Search completed: May 16, 2003, 11:12:04 Job time: 32.4578 secs
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                                                                                                                                                                                                                                                                                   anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
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APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
TITLE OF INVENTION: BEING IMMOBILIZED
TITLE OF INVENTION BEING IMMOBILIZED
TITLE OF INVENTION NUMBER: US/10/059,271
CURRENT FALING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR APPLICATION NUMBER: DE 101 06 295
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 82
LENGTH: 254
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
CHURE INFORMATION. DECRESSION of Artificial Sequence
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Search completed: May 16, 2003, 12:10:24 Job time: 15.759 secs
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SEQ ID NO 81
LENGTH: 232
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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CURRENT APPLICATION UMBER: US/10/059,271
CURRENT FILING DATE: 2002-01-31
PRIOR ADDITATION
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PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
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                                                                                 RESULT 12
US-10-040-349B-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Human immunodeficiency virus type 1
US-09-779-451-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-779-451-41
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Sequence 2, Application US/10040349B Publication No. US20030082521A1 GENERAL INFORMATION: APPLICANT: Brasseur, Robert
                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 4
LENGTH: 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 4, Application US/09779451 Patent No. US20020094521A1
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Best Local
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                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Allaway, Graham P. TITLE OF INVENTION: Assay for FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 77 SOFTWARE: PatentIn version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.0 PQ ID NO 41 LENGTH: 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2000-02-10 NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/235,901
                                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 46
                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 97.
                                                                                                                                                                   16 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 51
                                                                                                                                                                                      1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                 97.0%;
97.2%;
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97.2%;
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                                                                                                                                                                                                                                                                     Score 191; DB 10; Pred. No. 1.5e-16;
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Pred. No. 1
                                                                                                                                                                                                                                                    Mismatches
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1.2e-16;
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                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic ; OTHER INFORMATION: peptide US-10-059-271-84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2
SEQ ID NO 84
LENGTH: 221
TYPE: PRT
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                                                                                                                                           US-10-059-271-81
                                                                                                                                                                 RESULT 14
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Best Local Similarity 97.2
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                                                                               GENERAL INFORMATION:
                                                                                                  Sequence 81, Application US/10059271 Publication No. US20030082208A1
                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 35; Conserv
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                   APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT FILING DATE: 20 NUMBER OF SEQ ID NOS: 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Krell, Tino TITLE OF INVENTION: Polypeptide Inducing Antibodies Neutralizing FILE REFERENCE: 01-078-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: DE 101 06 295 PRIOR FILING DATE: 2001-02-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: REPKE, HEINRICH APPLICANT: BUDDE, ECKHARD APPLICANT: NICOLAUS, STEFAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/059,271 CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND TITLE OF INVENTION: BEING IMMOBILIZED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: ALBRE-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 177
TYPE: PRT
ORGANISM: Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 139
                                                                                                                                                                                                                             131 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
                                                                                                                                                                                                                                                                     1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chevalier, Michel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     El Habib, Raphaelle
                                                                                                                                                                                                                                                                                                                Conservative
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                     STEFAN
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97.2%;
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97.2%;
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Pred. No. 6.2e-16;
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Pred. No. 4.9e-16;
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Length 221

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Length 177;

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US-09-854-816-108
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                                                                                                                                                                 Sequence 108, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09854816 Patent No. US20020151473A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: Linear
MOLECULE TYPE: DP178
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
99-854-816-1
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                                                                                                                                                                                                                                                                                                                                                                       Local Similarity es 35; Conserv
                                                                                                                                                                                                                                                                                              1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: Unknown>
TITLE OF INVENTION: Constrained Helical Peptides and Methods of Making Same NUMBER OF SEQUENCES: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
                                                                                                                                                 APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 mb floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
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ADDRESSEE: Genente
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
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                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                     J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
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Melissa A. Starovasnik
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97.2%;
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                                                         Wells
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                                                                                                                                                                                                                                                                                                                                                                     0;
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Pred. No. 9.2e-17;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                         Length 36;
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APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular Antigen Array
FILE REFERENCE: 1700.0180002
CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 176
LENGTH: 37
TYPE: PRI
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Best Local Similarity
"-+~hes 35; Conserv?
                                                                               US-09-848-616-176
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                  Query Match
Best Local Similarity
  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 176, Appublication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Sebbel, Peter APPLICANT: Dunant, Nico
                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                   ORGANISM: Artificial Sequence FEATURE:
                                                                                                OTHER INFORMATION: DP178c peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 650/225-8674
TELEFAX: 650/952-9981
INFORMATION FOR SEQ ID NO: 108:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: US/08/854,816
FILING DATE: 15-May-2001
CLASSIFICATION DATA:
OLASSIFICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:

NAME: Torchia, PhD., Timothy E.

REGISTRATION NUMBER: 36,700

REFERENCE/DOCKET NUMBER: P1005R2

TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 108:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: Amino Acid TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: South San Francisco
                                                                                                                                                                                                                                                                                                                                                             Bachmann, Martin
Tissot, Alain
                                                                                                                                                                                                                                                                                                                                                                                                       Dunant, Nicolas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09848616
o. US20030054010A1
Conservative
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                  97.0%;
97.2%;
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97.2%;
                  Score 191; DB 9; Pred. No. 9.4e-17;
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Pred. No. 9.2e-17;
Mismatches
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                                   Length 37;
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Indels
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1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

NUMBER OF SEQ ID NOS: 5

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                                                  ; NAME/KEY: PEPTIDE
; LOCATION: (1)..(36)
; OTHER INFORMATION: T-20
US-09-796-202-10
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US-10-116-797-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Description of Artificial Sequence: T20 peptide US-09-493-346-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-493-346-1
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Best Local Similarity
Matches 35; Conserv
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Best Local :
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                                                                                                                                                                          SOFTWARE: PatentIn version 3.0 SEQ ID NO 10 LENGTH: 36
                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                         Sequence 10, Application US/09796202
Patent No. US20020068813A1
                                                                                                                                                                                                                                             APPLICANT: Dragic, Tatjana
APPLICANT: Olson, William
TITLE INVENTION: SULFATED CCR5 PEPTIDES
FILE REFERENCE: 2048/61010/JPW/SHS
CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/493,346 CURRENT FILING DATE: 2000-01-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Olson, William C
APPLICANT: Maddon, Paul J
TITLE OF INVENTION: Compositions and Methods
TITLE OF INVENTION: Infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 5
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          equence 1, Application US/09493346 blication No. US20030082185A1 NERAL INFORMATION:
                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
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TYPE: PRT
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                                                                                                                                       ORGANISM: unknown
                                                                                                                                                           TYPE: PRT
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                                                                                                                          FEATURE:
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Local Similarity 97.2%;
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Pred. No. 9.2e-17;
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Pred: No. 9.2e-17
 Score 191;
Pred. No. 9
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 DB 10;
.2e-17;
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; ORGANISM: Human immunodeficiency virus US-09-779-451-5
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                                                                                                                                                    US-09-834-628-1
                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: YU, YEON GYU
APPLICANT: XIN, KEY-SUN
APPLICANT: JIN, BONG-SUK
TITLE OF INVENTION: PEPTIDES FOR INHIBITION OF HIV INFECTION
FILE REFERENCE: 05823.0198-00000
CURRENT APPLICATION NUMBER: US/00/834,628
CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5, Application US/09779451 Patent No. US20020094521A1
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Best Local Similarity
Matches 35; Conserv
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Best Local
                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 2000-02-10 NUMBER OF SEQ ID NOS: 77'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Wild, Carl T APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 36
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide OTHER INFORMATION: DP178
                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence
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les 35; Conser
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                 1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                       Score 191; DB Pred. No. 9.2e 0; Mismatches
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Pred. No. 9.2e-17;
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Result
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                         Score
 seq length: 0
seq length: 2000000000
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Match
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197
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                             362588 seqs, 96450795 residues
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: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
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3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US0_PUBCOMB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US0_PUBCOMB.pep:*
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/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
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                                      US-09-874-475-16
US-09-493-346-1
0 US-09-796-202-10
0 US-09-796-202-10
0 US-09-796-281-628-1
0 US-09-854-816-1
0 US-09-848-616-1
0 US-09-848-616-1
0 US-09-848-616-1
0 US-09-848-616-1
0 US-09-848-616-1
0 US-09-779-451-4
1 US-10-059-271-81
US-10-059-271-81
US-10-059-271-87
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                      Sequence 10, Appl
Sequence 5, Appli
Sequence 1, Appli
Sequence 108, App
Sequence 176, App
Sequence 41, Appli
Sequence 44, Appli
Sequence 2, Appli
Sequence 84, Appli
Sequence 81, Appl
Sequence 81, Appl
Sequence 81, Appl
Sequence 97, Appl
Sequence 97, Appl
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Sequence 1, Appli
Sequence 1, Appli
Sequence 10, Appl
                                                                                                                                                                                                                                                                                        Description
Sequence 16,
Sequence 17,
Sequence 18,
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
181	181	182	182	182	182	182	182	182	183	185	188	188	188	188	188	191	191	191	191	191	191	191	191	191	191
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269	46	847	646	619	269	268	268	233	268	1231	269	268	268	267	36	1186	1101	861	856	853	519	391	345	345	344
10	10	10									10	10	10	10	10	Q	9	9	10	9	10	9	10	9	9
US-09-854-816-6	US-09-854-816-109	US-09-476-242-2	US-09-891-609-2	US-09-891-609-4	US-09-854-816-12	US-09-854-816-26	US-09-854-816-9	US-09-854-816-50	US-09-854-816-13	US-10-059-271-94	US-09-854-816-43	US-09-854-816-41	US-09-854-816-19	US-09-854-816-38	US-09-912-824-1	US-10-003-035-55	US-10-003-035-53	US-10-026-741-103	US-09-476-242-1	US-10-003-035-33	US-09-756-551A-8	US-10-059-271-93	US-09-779-451-8	US-10-026-741-49	US-10-040-349B-1
Sequence 6, Appli	109	ν	Sequence 2, Appli	4	12,	~		50,	Sequence 13, Appl	Sequence 94, Appl	43	Sequence 41, Appl	19,	38,	e 1,	Sequence 55, Appl		103,	Sequence 1, Appli	w	8	ω,	e &	49,	Sequence 1, Appli

## ALIGNMENTS

RESULT 1 US-09-874-475-16

GENERAL INFORMATION:

Sequence 16, Application US/09874475 Publication No. US20020182592A1

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Query Match
Best Local Similarity
Tatches 35; Conserve
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US-10-116-797-1
                                                                                                                                                                                                                                                                                            Вþ
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                                   Sequence 1, Application US/10116797

Publication No. US20030044411A1

GENERAL INFORMATION:
APPLICANT: Olsen, William C.
APPLICANT: Maddon, Paul J.

TITLE OF INVENTION: METHODS FOR INHIBITING HIV-1 INFECTION

FILE REFERENCE: 64672-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn version 3.1
SEQ ID NO 16
LENGTH: 36
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/874,475
CURRENT FILING DATE: 2001-06-04
NUMBER OF SEQ ID NOS: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Whitcomb, Jeanette
APPLICANT: Huang, wei
APPLICANT: Huang, wei
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUATING VIRAL RECEPTOR/CO-RECE
TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING RECOMBINANT VIRUS ASSAYS
FILE REFERENCE: 2793/65166
CURRENT APPLICATION NUMBER: US/10/116,797
CURRENT FILING DATE: 2002-10-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Petropoulos, Christos J. APPLICANT: Parkin, Neil T.
                                                                                                                                                                                                                                                                                     1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                 1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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97.2%;
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Pred. No. 9.2e-17;
0; Mismatches 1
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1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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RESULT 13
US-09-082-279B-497
; Sequence 497, Application US/09082279B
patent No. 6258782
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RESULT 15
US-09-082-279B-603
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                                                                     Дb
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                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 498
LENGTH: 36
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Matches
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Best Local Similarity
Matches 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Anwer, Mohmed
APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
ILE REFERENCE: 7872-043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                          TYPE: PRT
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les 35; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             L INFORMATION:
CANT: Barney, Shawn
CANT: Guthrie, Kelly
CANT: Merutka, Gene
CANT: Anwer, Mohmed
                                                                                     1 YTGLIHSLIEESONQOEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION:
                                                                   YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Guthrie, Kelly
Merutka, Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barney, Shawn
                                                                                                                                       Conservative
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Pred. No. 9.3e-18;
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Pred. No. 9.3e-18;
0; Mismatches 1
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CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FRSTSEQ for Windows Version 3.0
SEQ ID NO 603
LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Core polypeptide
US-09-082-279B-603
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Search completed: May 16, Job time: 10.1928 secs
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GENERAL IN
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                                                                                                                                      Query Match
Best Local Similarity
Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                   1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                    YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION:
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Guthrie, Kelly
Merutka, Gene
Anwer, Mohmed
                                                                                                                                          Conservative
                                                                                                                                                       97.0%;
97.2%;
                 2003,
                 11:22:12
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Pred. No. 9.3e-18;
0; Mismatches 1
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US-08-554-616-1

Sequence 1, Application US/08554616
Patent No. 6133418
GENERAL INFORMATION:

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                                                                                                                                                                                 GENERAL INFORMATION:
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                                                                                                                APPLICANT:
APPLICANT:
                  TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                    APPLICANT:
                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: COTUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 783
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 06-NOV-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/073,028
FILING DATE: 07-JUN-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Bolognesi, Dani P. APPLICANT: Matthews, Thomas J. APPLICANT: Wild, Carl T. TITLE OF INVENTION: SYNTHETIC PERTITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
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TOPOLOGY: unl
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STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                             1 YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     i: 36 amino acids amino acid
      INVENTION:
                                                                                                                                                                                                             Application US/08485264A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   66141 PENNIE
Barney, Shawn O.
Lambert, Dennis M.
Petteway, Stephen R.
Langlois, Alphonse J.
VENTION: COMPOSITIONS FOR INHIBITION OF
VENTION: MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING
EQUENCES: 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1155 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  : (212) 790-9090
(212) 869-8864/9741
                                                                                                                                 Matthews, Thomas J. Wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                               Bolognesi, Dani P
                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown
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06-NOV-1995
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97.2%;
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                                                                                                                                                                                                                                                                                                                                                                         Score 191; DB 4;
Pred. No. 9.3e-18;
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Query Match
Best Local Similarity
Trans 35; Conserve
                                                                                ; OTHER INFORMATION: Core polypeptide US-09-082-279B-15
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                                                                                                                                                                SOFTWARE: F
SEQ ID NO 15
LENGTH: 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No.
                                                                                                                                                                                                                FILE REFERENCE: 7872-043
CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
                                                                                                                                                                                                                                                                                TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                               ORGANISM: Artificial Sequence
                                                                                                                                                  TYPE: PRT
                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/485,264A FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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STREET: 11
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TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 10036-2711
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX:
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o. 6258782
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Guthrie, Kelly
Merutka, Gene
Anwer, Mohmed
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                 Conservative
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55 Avenue of the Americas
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97.2%;
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97.2%;
                                Score 191; DB 4;
Pred. No. 9.3e-18;
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Pred, No. 9.3e-18;
D; Mismatches 1
                 Mismatches
                                              Length 36;
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1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

CURRENT APPLICATION DATA:

SOFTWARE:

PatentIn Release #1.0, Version #1.30

US/08/475,668A

APPLICATION NUMBER: FILING DATE: 07-JUN

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                                               ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, LBUITA A.
REGISTRATION UNMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEPHAX: (212) 869-9741/8864
                  INFORMATION FOR SEQ
                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/485,551A
FILING DATE: 07-UN-1995
                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 787;
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-999
TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: METHODS FOR INHIBITION OF MEMBRANE TITLE OF INVENTION: FUSION-ASSOCIATED EVENTS, INCLUDING INFLUENZA VIRUS TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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SEQUENCE CHARACTERISTICS:
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                TELEFAX: (212,
TELEFAX: 66141 PENNIE
TELEFAX: 66141 PENNIE
                                                                                                                                                                                                                                                                                                                                                             CITY: New York
STATE: New York
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                                                                                                                                                                       CLASSIFICATION:
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Langlois, Alphonse J.
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                  ID NO:
                                                 869-9741/8864
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97.2%;
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Pred. No. 9.3e-18;
0; Mismatches 1;
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Best Local S
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                                                          Matches
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                                                                                                                                                                                                                            TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 10036-2711

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/0
FILING DATE: 07-JUN 1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COURZI, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                  NAME: COTUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
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APPLICANT:
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TITLE OF INVENTION:
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                                                                                                                                  MOLECULE TYPE: peptide
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                                                                     Local
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TOPOLOGY: unknown
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              1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                       Similarity
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1155 Avenue of the Americas
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                                                                                                                                                                                                                                                       (212) 790-9090
(212) 869-9741/8864
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Langlois, Alphonse J.

VENTION: COMPOSITIONS FOR INHIBITION OF MEMBRANE
VENTION: FUSION-ASSOCIATED EVENTS, INCLUDING EPSTEIN-BARR VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barney,
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                                                          Conservative
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97.2%;
                                                                       97.0%;
97.2%;
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                                                                         Score 191;
Pred. No. 9
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                                                          DB 3; 1
9.3e-18;
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YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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                                                                                                               Sequence 1, Applic Patent No. 6054265
                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
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                                                                                                  GENERAL INFORMATION:
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APPLICANT: Langlois,
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                              APPLICANT:
APPLICANT:
APPLICANT:
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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
 APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,223B
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS
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                                                                                                                              Application US/08919597
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(212) 869-9741/8864
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Langlois, Alphonse J.
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Lambert, Dennis M.
                                                              Bolognesi, Dani P. Matthews, Thomas J.
                                                                                                                                                                                                                                                                                Conservative
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 Petteway,
                                Barney, Shawn O.
                                                 Wild, Carl T.
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Lambert, Dennis M.
Petteway, Stephen
                                                                                                                                                                                                                                                                                                                                                                                unknown
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245
                                                                                                                                                                                                                                                                                               97.0%;
97.2%;
                                                                                                                                                                                                                                                                                               Score 191; DB 3;
Pred. No. 9.3e-18;
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                                                                                                                                                                                                                                                                                                            Length 36;
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Best Local S
Matches 35
                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application Patent No. 6060065
GENERAL INFORMATION:
                                                                                                                                                                                                  APPLICANT: Barney, Shawn O.
APPLICANT: Lambert, Dennis M.
APPLICANT: Petteway, Stephen
TITLE OF INVENTION: COMPOSITI
TITLE OF INVENTION: FUSION-AS
TITLE OF INVENTION: TRANSMISS
NUMBER OF SEQUENCES: 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (212) 869-974
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08 FILING DATE: 06-JUN-1995 ATTORNEY/AGENT INFORMATION: NAME: COTUZZI, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn-Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                                                           STREET: 1155 A
CITY: New York
STATE: New Yor
                                                                       COUNTRY: USA
ZIP: 10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 97.2
les 35; Conservative
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TOPOLOGY: ur
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                                                                                                                                                                                                                                                                                                                                                                       Application US/08475668A
                                                                                                             New York
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1155 Avenue of the Americas
IBM PC
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VENTION: METHODS AND COMPOSITIONS FOR INHIBITION VENTION: OF MEMBRANE FUSION-ASSOCIATED EVENTS, INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                              Lambert, Dennis M.
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compatible
PC-DOS/MS-DOS
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97.2%;
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                                                                                                                                                                                                                                                                               Stephen R
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US-08-486-099-1
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US-09-071-877-1
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                                                                                                                    Sequence 1, Application US/09071877 Patent No. 6015881
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                                                                                                      GENERAL INFORMATION:
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APPLICANT: Merutka, Gene
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR PEPTIDE SYNTHESIS
FILE REFERENCE: 7872-050
                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                   08-486-099-1
                                                                      APPLICANT: Kang, Myung-Chol
APPLICANT: Bray, Brian
                                                           APPLICANT:
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SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Rel
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STATE: New Yor
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10036-2711
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COIUZZI, Laura A.
COIUZZI, SIMMBER: 30,742
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Mader, Catherine
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Lambert, Dennis M.
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IBM PC compatible
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Pred. No.
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                                                           US-08-360-107A-1
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CURRENT FILING DATE: 1998-05-01
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                                                                                                                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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TITLE OF INVENTION:
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TELEFAX: 66141 PENNIE
TELEFAX: 10 PENNIE
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CLASSIFICATION:
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                                                                                                                                   LENGTH:
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                                                                                                                     amino acid
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(212) 869-9741/8864
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   Conservative
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                                                                                         unknown
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               Score 191; DB 3; Pred. No. 9.3e-18;
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Result
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Listing first 45 summaries
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Issued_Patents_AA:*

1: /cgn2_6/ptodata/1

2: /cgn2_6/ptodata/1

3: /cgn2_6/ptodata/1

4: /cgn2_6/ptodata/1

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6: /cgn2_6/ptodata/1
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197
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/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/B_COMB.pep:*
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US-08-919-597-1
US-08-475-668A-1
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US-08-485-279B-15
US-09-082-279B-498
US-09-082-279B-603
US-09-082-279B-603
US-09-082-279B-631
US-09-082-279B-834
US-09-082-279B-11161
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US-09-045-920-1
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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
ALIGNMENTS	US-09-082-279B-771	US-08-255-208A-1	US-09-315-304B-1520	US-09-315-304B-1486	US-09-315-304B-1470	US-09-315-304B-1469	US-09-315-304B-1161	US-09-315-304B-1121	US-09-315-304B-1076	US-09-315-304B-834	US-09-315-304B-705	US-09-315-304B-631	US-09-315-304B-630 .	US-09-315-304B-603	US-09-315-304B-498	US-09-315-304B-497	US-09-315-304B-15	US-08-474-349A-413
	Sequence 771, App	Sequence 1, Appli	Sequence 1520, Ap	Sequence 1486, Ap	-	Sequence 1469, Ap	Sequence 1161, Ap	Sequence 1121, Ap	Sequence 1076, Ap	Sequence 834, App	Sequence 705, App	Sequence 631, App	Sequence 630, App	Sequence 603, App			Sequence 15, Appl	Sequence 413; App

## ; MOLECULE TYPE: peptide US-08-073-028-1 US-08-073-028-1 Matches Query Match Best Local : Sequence 1, Application US/08073028 Patent No. 5464933 GENERAL INFORMATION: TELEPHONE: (212) 790-9090 TELEFAX: (212) 869-8864/9741 TELEX: 66141 PENULE INFORMATION FOR SEQ ID NO: 1: APPLICANT: APPLICANT: NAME: COTUZZÍ, LAUTA A. REGISTRATION NÚMBER: 30,742 REFERENCE/DOCKET NÚMBER: 78 TELECOMMUNICATION INFORMATION: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy APPLICATION NUMBER: US/00 FILING DATE: 07-JUN-1993 CLASSIFICATION: 514 ATTORNEY/AGENT INFORMATION: NAME: COTUZZI, Laura A. COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: SEQUENCE CHARACTERISTICS NUMBER OF SEQUENCES: 7 CORRESPONDENCE ADDRESS: TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV TITLE OF INVENTION: TRANSMISSION LENGTH: 36 amino acids TYPE: amino acid STRANDEDNESS: single Match 97.0%; Local Similarity 97.2%; nes 35; Conservative TOPOLOGY: ADDRESSEE: Pennle a pumpure STREET: 1155 Avenue of the Americas STATE: COUNTRY: 10036 New York : Matthews, Thomas J. Wild, Carl T. NVENTTON USA unknown Floppy disk US/08/073,028 7872-004-999 Score 191; DB 1; Pred. No. 9.3e-18; 0; Mismatches 1; Length 36; Indels 0; 0;

Qγ

1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

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A; Status: pre.....
A; Molecule type: DNA
A; Residues: 1-292,'X', 294-357 <STE2>
A; Cross-references: EMBL:X61353; NID
A; Cross-remilv: type E retrovirus env
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A; Residues: 1-358 <STEL>
A; Cross references: EMBL.X61359; NID:g60182; PIDN:CAA43630.1;
A; Ctors references: EMBL.X61359; NID:g60182; PIDN:CAA43630.1;
R; Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
A; Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A; Title: Distinct populations of human immunodeficiency virus A; Reference number: S70417; MUID:92144209; PMID:1736940
A; Accession: S70425
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                                                                                                                                                          A;Cross-references: EMBL:X61353; NID:g60188; PIDN:CAA43618.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 19m2
A;Title: Distinct populations of human immunodeficiency virus A;Reference number: S70417; MUID:92144209; PMID:1736940
A;Accession: S70419
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A;Residues: 1-222,'X',224-358 <STE2>
A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1;
C;Superfamily: type E retrovirus env polyprotein
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A; Residues: 1-357 <STE1>
                                                                                                                                                                                                                                                                                                                                                                          A; Reference number: S21990
                                                                                                                                                                                                                                                                                                                                                                                           R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; Hacke, W. submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood and cerebrospinal fluid
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    Query Match
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Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000
Accession: $22004; $70419
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Best Local
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pecies: human immunodeficiency virus type 1, HIV-1
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    89.8%;
                                                                       NID: g60188
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Pred. No. 1.1e-13;
    Score 177;
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Pred. No. 5.6e-14;
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Length 357;
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Search completed: May 16, Job time: 12.1446 secs

2003, 11:25:09

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A; Residues: 1-847 <OBR>
C; Superfamily: type E r
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C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
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                                                                                                                                                                                                                                                                                    R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, Nature 348, 69-73, 1990
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C; Superfamily:
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C; Accession:
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                                                                            Matches
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629 YTSEIYTLIEESQNQQEKNEQELLELDKWASLWNWF
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                  1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                            Conservative
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                                                                                            89.3%;
88.9%;
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                                                                                            Score 176;
Pred. No. 4
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                                                                                          5; DB 2;
4.4e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5; DB 2;
4.4e-13;
664
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                                                                                                              Length 847;
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A; Reference number: S21990
A; Accession: S21994
                                                         C; Accession: S21994; S70421
R; Steuler, H.; Storch-Hagenlocher, Submitted to the EMBL Data Library, A; Description: Distinct populations
                                                                                                                                              C;Species: human immunodeficiency virus
A;Variety: isolate 27B
C;Date: 20-Feb-1995 #sequence_revision
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                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: Envelope sequences
A;Reference number: A28922;
A;Accession: B28922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F;30-501/Product: coat protein gp120 #status predicted <GP1>F;502-847/Product: coat protein gp41 #status predicted <GP2>F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,354,360,390,394,404,447,455
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 k;Starcich, B.R.; Hahn,
Cell 45, 637-648, 1986
                                                                                                                                                                                      envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Accession: B28922
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: A24774
R; Starcich, B.R.; H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Gene: env
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Residues: 1-861 <GUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Virology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Gurgo,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N; Alternate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      env polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Superfamily: type E retrovirus env polyprotein; superfamily: type E retrovirus env polyprotein; polyprotein; transmembrane prote; Reywords: capsid protein; cate protein; glycoprotein; polyprotein; transmembrane prote; l-29/Domain: signal sequence #status predicted <SIG>
10-861/Product: env polyprotein #status predicted <EPP>
1129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,333,340,356,362,386,396
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                                                                                                    Storch-Hagenlocher, B.; Wildemann, B.;
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DNA
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91.7%;
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Pred. No. 6.6e-14;
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Pred. No. 6.6e-14;
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                                                         blood and cerebrospinal
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                                                                                                        Hacke,
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C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodefi
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-509/Product: exterior membrane glycoprotein #status predicted <EXT>
  F;510-855/Product: transmembrane glycoprotein #status F;87,129,140,158,184,190,200,244,265,292,298,304,334,3
                                                                                                                                            A;Gene: env
                                                                                                                                                             C; Genetics:
                                                                                                                                                                                     A; Cross-references: GB: K02007;
                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-855 <SAN>
                                                                                                                                                                                                                                                          A; Reference number: A; Accession: A03976
                                                                                                                                                                                                                                                                             A; Title: Nucleotide sequence and expression of an AIDS-associated A; Reference number: A04003; MUID:85090453; PMID:2578227
                                                                                                                                                                                                                                                                                                                                                                                                                    C;Species: human immunodeficiency virus type 1, HIV-1 A;Note: host Homo sapiens (man)
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A;Molecule type: DNA
A;Residues: 1-357 <ST2>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 20-Feb1J95  #sequence_revision 20-Feb-1995  #text_change C;Accession: S70422; S21996
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A; Residues: 1-140, 'X', 142-312, 'X', 314-357 <STE2>
A; Cross-references: EMBL:X61355; NID:g60179
C; Superfamily: type E retrovirus env polyprotein
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                                                                                                                                                                                                                                                                                                                               Science 227,
                                                                                                                                                                                                                                                                                                                                                    R; Sanchez-Pescador,
                                                                                                                                                                                                                                                                                                                                                                       C; Accession: A03976
                                                                                                                                                                                                                                                                                                                                                                                             C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
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nes 33; Conser
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∽h-Haαenlocher, B.; Wildemann,
                                                                                                                                                                                                                                                                                                                                               Power, M.D.;
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91.7%;
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91.7%;
                                                                                                                                                                                     NID: g328658; PIDN: AAB59882.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 182;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                  Barr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             182;
                                                                                                                                                                                                                                                                                                                                                  P.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       w
n #status predicted
,304,334,341,358,36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIDN: CAA43622.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2;.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .2e-14
                                                                                        glycoprotein; immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                  Steimer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 357;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                virus type 1 in blood and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type 1 (isolate
                                                                                                                                                                                                                                                                                                                                                    K.s.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   type 1 (patient 27L)
                                                                                                                                                                                     PID: 9328666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PID:g1067129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PID: 960180
                       <MMT>
                                                                                                                                                                                                                                                                                                                                                                                               16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                       retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 in blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                       (ARV-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
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                                                                                          polyp
                                                                                                                                                                                                                                                                                                                                                    Brown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cer
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,158,184,190,200,

,358,364,388,394,400,408,445

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nberger, J.A.; Papas, T.S
Nature 313, 277-284, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         env polyprotein precursor - human immunodeficiency virus N, \mathtt{Alternate} names: coat polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Accession: A03975
R; Wain-Hobson, S.; Cell 40, 9-17, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-856 <R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R; Ratner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Note: host Homo sapiens (man)
C; Date: 17-May-1985 #sequence_r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Residues: 1-856 <RAT>
A;Cross-references: GB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VCLJLV
N; Alternate name
                                                     C41621
                                                                                                                                                                     В
                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Title: Nucleotide sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Accession: A03973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; 1-30/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Superfamily: type E retrovirus env polyprotein Keywords: AIDS; capsid protein; coat protein;
                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                          molecule type: DNA
psidues: 1-861 <WAI>
coss-references: GB:K02013; NID:g326417; PIDN:AAB59751.1; PID:g326424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -30/Domain: signal sequence #status predicted <SIG>
-51/Product: exterior membrane glycoprotein #status predicted <EXT>
-51/Product: exterior membrane glycoprotein #status predicted <TMM>
-856/Product: transmembrane glycoprotein #status predicted <TMM>
8,336,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,406
8,336,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,406
11,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status predictions of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content 
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                                                                                                                                                                     643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L.; Haseltine, W.;
                                                                                                                                                                                                                           YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                  YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . Similarity 35; Conserv
  names:
                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            precursor - human immunodeficiency virus
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  coat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A90866;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #sequence_revision 17-May-1985 #text_change
                          human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S.; Ghrayeb,
  polyprotein
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                                                                                                                                                                                                                                                                                                        97.5%;
                       immunodeficiency
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUID:85099333;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patarca,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 192; DB Pred. No. 5.6e 1; Mismatches
                                                                                                                                                                                                                                                                                                             Score 192;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J.;
                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R.; Livak, K.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chang, N.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 virus,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cole,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PMID: 2981635
                          virus
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6e-15;
                                                                                                                                                                                                                                                                                                                                           DB 1;
                                                                                                                                                                                                                                                                                                                6e-15;
                                                                                                                                                                        678
                                                                                                                                                                                                                              36
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                          type 1 (fragment)
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                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alizon,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GB:K02010; NID:g326383;
                                                                                                                                                                                                                                                                                                                                     Length 861
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Starcich, B
Gallo, R.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                      Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               type 1 (isolate LAV-la).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (isolate HTLV-III,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                   0;
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Wong-Staal,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
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N;Contains: coat protein gp120; coat protein gp41
C;Species: human immunodeficiency virus type 1, H
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-198
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                                                                                                                VCLJ3W
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precursor

human immunodeficiency virus

type

(isolate WMJ1)

-Sep-1988

#text\_change

HIV-1

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Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
A;Title: Evolution of human immunodeficiency virus type
A;Reference number: A41621; MUID:92107924; PMID:1763038
A;Accession: C41621
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C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein;
C;Superfamily: type E retrovirus env polyprotein;
C;Superfamily: type E retrovirus env polyprotein;
C;Superfamily: type E retrovirus env polyprotein;
F;1-251/Product: coat protein gp120 (fragment) #status predicted <GP1>
F;252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>
F;424-443/Domain: transmembrane #status predicted <TMN>
F;424-443/Domain: transmembrane #status predicted <TMN>
F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding site:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N;Contains: amino end of coat protein gp41; carboxyl end of C;Species: human immunodeficiency virus type 1, HIV-1
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C;Date: 11-Feb-1993 #sequence_revision 31-Dec-1993 #text_change
                                                                                                                                                                                                                                                                                                    F;512-856/Product: transmembrane glycoprotein #status predicted <TMM>
F;88,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,
F;611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status profile from the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the content of the c
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A;Gene: env

C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein
C;Superfamily: type E retrovirus env polyprotein
F;1-30/Domain: signal sequence #status predicted <SIG>
F;1-30/Domain: signal sequence #status predicted <EXT>
F;31-511/Product: exterior membrane glycoprotein #status predicted <EXT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: GB:K02083; NID:g555008; PIDN:AAB59873.1; C;Genetics:
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A; Title: Nucleic acid
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A; Residues:
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Matches
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YTSLIHSLIEESQNQQEKNEQELLELDKWANLWNW
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Pred. No. 6
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Title:
Perfect score:
Sequence:
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                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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PIR_73:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                   May 16, 2003, 11:04:54; Search time 12.1446 Seconds (without alignments) 284:970 Million cell updates/sec
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197
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	80	7	6	5	4	ω	2	1	No.	Result
173	173	174	174	174	174	174	174	174	174	175	175	175	175	176	176	177	180	181	182	182	183	183	183	183	192	192	192	192	Score	
87.8	87.8	88.3				88.3				88.8									92.4	92.4	92.9	92.9	92.9	N	97.5	7	7	-	Match	Query
861	729	859	855	853	852	358	358	358	357	852	843	445	357	847	847	357	358	855	357	357	861	856	856	443	861	856	854	851	Length	
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RESULT 3 VCLJH3

Qy B

Query Match 97.5%; Score 192; DB 2; Length 854 Best Local Similarity 97.2%; Pred. No. 5.6e-15; Matches 35; Conservative 1; Mismatches 0; Indels	RESULT 2  \$13288 env protein - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31- C;Accession: \$13288 R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, A.; Nature 348, 69-73, 1990 A;Title: HIV-1 tropism for mononuclear phagocytes can be determined A;Reference number: \$13288; MUID:91043044; PMID:2172833 A;Accession: \$13288 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-854 <obr> C;Superfamily: type E retrovirus env polyprotein</obr>	Query Match  97.5%; Score 192; DB 2; Length 85: Best Local Similarity 97.2%; Pred. No. 5.6e-15; Matches 35; Conservative 1; Mismatches 0; Indels  Qy 1 YTNLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36   :	lyprotein - human immunodeficiency virus type 1 les: human immunodeficiency virus type 1, HIV-1 : 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_chang ssion: S33985 ini, F ted to the EMBL Data Library, November 1991 rence number: S33979 ssion: S33985 us: preliminary cule type: mRNA dues: 1-851 <car> cule type: mRNA dues: 1-851 <car> s-references: EMBL.211530; NID:960192; PIDN:CAA77628.1; rfamily: type E retrovirus env polyprotein</car></car>	DESTITE 1	30 172 87.3 846 1 VCLJND env   enve   31 167 84.8 859 2 T00266 enve   32 165 83.8 136 2 JT00266 enve   33 165 83.8 136 2 JT00266 enve   34 165 83.8 454 2 JT00264 enve   35 165 83.8 454 2 VCLJH4 env   36 151 76.6 854 1 VCLJS1 env   37 149 75.6 856 1 AA4963 env   37 149 75.6 856 1 AA4963 env   38 144 73.1 35.2 \$49197 enve   40 116 58.9 863 2 A53034 env   36 43.7 881 2 \$30048 env   36 43.7 881 2 \$30048 env   37 885 43.1 151 2 \$30448 env   38 643.1 151 2 \$304452 env   38 643.1 151 2 \$304452 env   38 643.1 151 2 \$30452 env   38 643.1
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R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991
A;Description: Distinct populations of HIV-1 in blood A;Reference number: $21990
A;Accession: $21998
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C; Species: h
                                δÃ
                                                                                                                                                                                                                                                                                A7Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992 A;Title: Distinct populations of human immunodeficiency virus A;Reference number: $70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
C;Accession: S21998; S70425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        envelope protein gp120/gp41 - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;20-500/Product: exterior membrane glycoprotein #status predicted <EXT>
F;501-855/Product: transmembrane glycoprotein #status predicted <TMM>
F;87,129,140,145,154,158,186,189,199,236,243,264,278,291,297,333,340,355,386,392,398,404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: A26192; A; Accession: D26192
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밁
                                                                                                                                                          A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630.1; C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-222, 'X', 224-358 <STE2>
                                                                                                                                                                                                                                           A;Status: preliminary
                                                                                                                                                                                                                                                                 A; Reference number: A; Accession: S70425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-855 <SRI>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                                                                                                                                                                                                                                      plecule type: DNA
bsidues: 1-358 <STE1>
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                                  YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTSLIYTLIEQSQNQQEKNEQELLELDKWASLWNWF 175
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                                                                             Conservative
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91.7%;
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Pred. No. 8.
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                                                                                                Pred.
                                                                                                               Score 179;
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                                                                                                No.
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                                                                                                                   DB 2;
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C;Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency; polyp
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp
F;1-29/Domain: signal sequence #status predicted <SIG>
F;30-501/Product: coat protein gp120 #status predicted <CP1>
F;502-846/Product: coat protein gp11 #status predicted <CP2>
F;502-520/Domain: transmembrane #status predicted <TM1>
F;674-692/Domain: transmembrane #status predicted <TM2>
F;674-692/D
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A;Title: Distinct populations of human immunodeficiency virus A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991 A:Description: Distinct populations of HIV-1 in blood A;Reference number: S21990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Variety: isolate 4B
C; Date: 20-Feb-1995 #sequence_revision
C; Accession: S22004; S70419
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Gene 81, 275-284,
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C:Date: 30-Sep-1991 #sequence_revision
C:Accession: JQ0066
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C;Species: human immunodeficiency virus type 1, HIV-1
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A; Residues: 1-357 <STE1>
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A; Residues: 1-292, 'X', 294-357 <STE2>
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Matches
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                                          1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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YTDLIYSLIEESQNQQEKNEQELLALDKWANLWNWF
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                                                                                                                                                                                             88.8%;
88.9%;
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91.78;
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Pred. No. 1.5e-13;
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A; Gene: env
C; Superfamil
C; Keywords:
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A; Molecule type: DNA
A; Residues: 1-856 <S'
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A; Residues: 1-856 < MUE>
A; Residues: 1-856 < MUE>
A; Cross-references: GB: KO2083; NID: 9555008; PIDN: AAB59873.1; P
C; Genetics:
A; Gene: env
C; Superfamily: type E retrovirus env polyprotein
C; Keywords: AIDS; capsid protein; coat protein; glycoprotein;
E; I-30/Domain: signal sequence #status predicted < SIGS-
F; I-30/Domain: signal sequence #status protein; #status prodicted < SIGS-
F; I-30/Domain: signal sequence #status prodicted < SIGS-
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F; I-30/Domain: signal sequence #status prodicted < SIGS-
F; I-30/D
A;Gene: env
C;Superfamily:
                                                                                                                                                      A;Title: Envelope sequences of two new Uni A;Reference number: A28922; MUID:88219542; A;Accession: B28922
                                                                                                                                                                                                                                              C; Accession: B28922
R; Gurgo, C.; Guo, H.G.; Fra
Virology 164, 531-536, 1988
                                                                                                                                                                                                                                                                                                                                      N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus A;Note: host Homo sapiens (man) C;Date: 31-Dec-1990 #sequence_revision:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C:Keywords: coat protein; glycoprotein; polyprotein; transmembran F;1-29/Domain: signal sequence #status predicted <SIG> F;30-501/Product: coat protein gp120 #status predicted <GP1> F;502-647/Product: coat protein gp41 #status predicted <GP2> F;87,134,140,151,155,183,197,234,241,262,276,289,295,331,338,354,
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                                                                                                                             A; Molecule
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Starcich, B.R.; Hahn, B.H.; Shaw, G.M.; McNeely, P.D.; Modrow, Cell 45, 637-648, 1986
A;Title: Identification and characterization of conserved and var A;Reference number: A24774; MUID:86218077; PMID:2423250
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                                                                     Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Accession:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Species: human
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es: human immunodeficiency virus type 1, HIV-1
30-Sep-1988 #sequence_revision 30-Sep-1988 #t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YTSLIYNLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNW
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                                                                                                 type: I
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1 <GUR>
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      retrovirus
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91.7%;
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94.3%;
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Pred. No. 4.9e-14;
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Pred. No. 4
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3219542; PMID:3369091
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   polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                     type 1,
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.9e-14;
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                                                                                                                                                                                                                                                                           Farrell,
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envelope polyprotein - human immunodeficiency virus type C;Species: human immunodeficiency virus type 1, HTV-1 C;Date: 15-Jul-1995 #sequence_revision 01-Sep-1995 #text_C;Accession: S54384 R;Theodore, T; Buckler-White, A.J.
                                                                                                                                                                                                                                                                                                                                                                                         Qy
                                                                C; Superfami.
C; Keywords:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R:Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency
A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Description: Distinct populations of HIV-1 in A; Reference number: S21990
                                                                                                                A; Molecule type: genomic A; Residues: 1-853 <THE>
                                                                                                                                                                A; Reference number: A; Accession: S54384
                                                                                                                                                                               submitted to the EMBL Data A; Reference number: S54377
                                                                                                                                                                                                                                                                                                                                                              В
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A; Residues: 1-140,'X',142-312,'X',314-357
A; Cross-references: EMBL: X61355; NID: 96017
C; Superfamily: type E retrovirus env polyn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Reference number: A; Accession: S70421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Reference number: A; Accession: S21994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Species: human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F;30-861/Product: env polyprotein #status predicted <EPP>F;87,129,135,140,143,159,163,187,198,234,241,262,276,295,301,302,
                                                                                              A; Cross-references:
                                                                                                                                               A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-357 <STE1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Keywords: capsid protein; coat protein; glycoprotein; polyprotein;
                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F;1-29/Domain: signal sequence #status predicted <SIG>
                                                                               Cross-references: EMBL:M22639;
Superfamily: type E retrovirus
 Matches
                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cross-references: EMBL:X61355; NID:g60179; PIDN:CAA43622.1;
                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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                                                                polyprotein
 33;
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3
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                Similarity
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 Conservative
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immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                 RNA
               91.4%;
91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                          91.48;
91.78;
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91.7%;
                                                                                                                                                                                              Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; NID:g60179
s env polynroi
                                                                           NID:g329377; PI
env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 180; 1
                Score
Pred.
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2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 182; Ub 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunodeficiency virus
trus type 1, HIV-1
 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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                              180;
                NO.
                  œ
               DB 2;
.6e-14;
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.2e-14;
                                                                                              PIDN: AAA45370.1;
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                                 853;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PID:960180
                                                                                                PID: 9329385
                                                                                                                                                                                                                                             26-Aug-1999
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Gaps
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1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF

YTGLIYRLIEESQTQQEKNEQELLELDKWASLWNWF

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RESULT
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VCLJLV
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   C;Species: human
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                                                                                                                                                                                                                                                                                                                                                                                              C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coast protein; glycoprotein; immunodeficiency; polyprot
C;Keywords: AIDS; capsid protein; coast protein; eSIG>
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-516/Product: exterior membrane glycoprotein #status predicted <EXT>
F;317-861/Product: transmembrane glycoprotein #status predicted <TMM>
F;517-861/Product: transmembrane glycoprotein #status predicted <TMM>
F;888,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,41:
F;888,136,141,146,161,165,191,202,239,246,267,281.294,300,306,337,344,361,391,397,402,41:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Wain-Hobson, S.; S
Cell 40, 9-17, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Note: host Homo sapiens (man)
C; Date: 17-May-1985 #sequence_r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 1,
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A; Residues: 1-856 < RAT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: A90866; A; Accession: A03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Title: Nucleotide sequence of the AIDS v: A; Reference number: A90866; MUID:85099333;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:M15654; GB:K02008; GB:K02009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1-30/Domain: signal sequence #status predicted <SIG>
-511/Product: exterior membrane glycoprotein #status predicted <EXT>
-2-855/Product: transmembrane glycoprotein #status predicted <TMM>
12-855/Product: transmembrane glycoprotein #status predicted <TMM>
188.136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,406
181,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent) #status predicted carbohydrate (Asn) (covalent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genetics:
                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oss-references: GB:K02013; NID:g326417; PIDN:AAB59751.1; PID:g326424
                                                                                                                                                                           643
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                                                                                                                                                                                                                                                                                                                     Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     host Homo sapiens (man)
                                                                                                                                                                           YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 678
                                                                                                                                                                                                                              YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . Similarity
35; Conserv
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gp120/gp41 - huma
immunodeficiency
                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                               97.0%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97.0%;
97.2%;
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                              human
                                                                                                                                                                                                                                                                                                                  Score 191; DB 1;
Pred. No. 4.1e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunodeficiency virus
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      virus
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immunodeficiency
irus type 1, HIV-1
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                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    virus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cole,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PMID:2981635
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  glycoprotein; immunodeficiency;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alizon,
                           virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 856;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GB:K02010; NID:g326383;
                                                                                                                                                                                                                                                                                                                                             Length 861;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Starcich, B. Gallo, R.C.;
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                           type
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                                                                                                                                                                                                                                                                                    0,
                           (patient
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Josephs,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp F;1-25L/Product: coat protein gp120 (fragment) #status predicted <GP1> F;252-443/Product: coat protein gp41 (fragment) #status predicted <GP2> F;424-443/Domain: transmembrane #status predicted <TMN> F;9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Reference number: A41621; MUID:92107924; PMID:1763038 A;Accession: C41621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.; Nguyen, Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
A;Title: Evolution of human immunodeficiency virus type 1
                        A; Title: Nucleic acid structure and expression of A; Reference number: A93355; MUID: 85111157; PMID: 29
                                                                                 R; Muesing, M.A.; Smith, D.H.; Cabradilla, Nature 313, 450-458, 1985
                                                                                                                                                                     A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                                                                                                                                                                                                        env polyprotein precursor - human immunodeficiency virus N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 1, HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QΥ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:M77230; NID:g328631; PIDN:AAB03792.1; PID:g555015 A;Note: this virus was isolated from the mother's sexual partner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Accession: C41621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Note: host Homo sapiens (man) C; Date: 11-Feb-1993 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N, \mbox{Alternate names: coat polyprotein} \\ N, \mbox{Contains: amino end of coat protein}
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Cross-references: EMBL:X61356;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-357 <ST2>
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AIDS Res. Hum. Retroviruses 8, 53-59, 1
A;Title: Distinct populations of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Date: 20-Fe
A; Reference number: A; Accession: A03974
                                                                                                                                          C; Accession:
                                                                                                                                                                                                                                                                                                                                                RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
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les 33; Conserv
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34; .Conser
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91.78;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 182; DB 2; Pred. No. 2.3e-14;
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2; Mismatches
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                                                                                                               C.D.;
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                                                                                                               Benton,
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                                                   the human AIDS/lymphadenopathy
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                                                                                                               C.V.;
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                                                                                                            Lasky, L.A.; Capon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PID:g1067129
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Listing first 45 summaries
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Maximum DB
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Perfect score:
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seq length: 0 seq length: 2000000000
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1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
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RESULT 3 VCLJH3

RESULT 2 \$13288 env protein - human immunodeficiency virus type 1 C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_ch: C;Accession: \$13288 R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Dia: Nature 348, 69-73, 1990 A;Title: HIV-1 tropism for mononuclear phagocytes can be de: A;Reference number: \$13288; MUID:91043044; PMID:2172833 A;Accession: \$13288 A;Status: preliminary A;Molecule type: DNA A;Residus: 1-854 <obr> C;Superfamily: type E retrovirus env polyprotein Query Match Best Local Similarity 97.2%; Pred. No. 4e-15; Matches 35; Conservative 0; Mismatches 1; Inde: Oy 1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36 [                                     </obr>	RESULT 1  \$33985 env polyprotein - human immunodeficiency virus type 1 C.Species: human immunodeficiency virus type 1, HTV-1 C.Species: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change C.Species: 19-Mar-1997 #sequence_revision 19-Mar-1991 A.Reference number: \$33979 A.Reference number: \$33979 A.Recession: \$33985 A.Status: preliminary A.Rolecule type: mRNA A.Residues: 1-851 <car> A.Cross-references: EMBL: Z11530; NID: g60192; PIDN: CAA77628.1; P C.Superfamily: type E retrovirus env polyprotein Ouery Match A.Cross-references: EMBL: Z11530; Score 191; DB 2; Length 851 Best Local Similarity 97.0%; Score 191; DB 2; Length 851 Best Local Similarity 97.2%; Pred. No. 4e-15; Matches 35; Conservative 0; Mismatches 1; Indels Oy 1   IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</car>	30 167 84.8 729 1 VCLJKX 31 167 84.8 861 1 VCLJKB 31 163 82.7 454 2 B41621 32 163 82.7 454 2 D4264 34 159 80.7 136 2 JU0266 35 159 80.7 136 2 JU0266 36 157 79.7 854 1 A44963 37 147 74.6 856 1 A44963 38 143 72.6 357 2 \$21990 39 132 67.0 877 2 \$21990 40 115 58.4 863 2 \$49197 41 86 43.7 881 1 VCLJG3 42 86 43.7 881 1 VCLJG3 43 86 43.7 889 1 VCLJG5 44 85 43.1 151 2 \$30448 45 85 43.1 151 2 \$30448
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Envelope polyprotein GP160 precursor [Contains: E
glycoprotein (GP120); Transmembrane glycoprotein
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InterPro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
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es; Retroviridae; Lentivirus.
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MEDLINE-B6218077; PubMed-2423250;
Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D., Modrow S., Wolstrich B.R., Hahn B.H., Shaw G.M., McNeely P.D., Modrow S., Wolstrich B.R., Hahn B.H., Shaw G.M., McNeely P.D., Modrow S., Wolstrich B.R., Wolsten G.M., McNeely P.D., McNeely P.
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NCBI_TaxID=11701;
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InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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3-AUG-1987 (Rel. 05, Last sequence)
5-JUL-1999 (Rel. 38, Last announce)
invelope polyprotein GP160 pree
lycoprotein (GP120); Transmemi
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                                                                                             M17451; E
                   Coat
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es; Retroviridae; Lentivirus.
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01-JUL-1993 (Rel. 26, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Egycoprotein (GP120); Transmembrane glycoprotein
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MEDLINE-86218077; PubMed=2423250;

MEDLINE-86218077; PubMed=2423250;

Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,

Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., W

"Identification and characterization of conserved a
regions in the envelope gene of HTLV-III/LAV, the r
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SEQUENCE FROM
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Viruses; Retroid virus
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JT 12 IVIEL ENV_HVIEL STANDARD; PRT; 853 AA.
l3-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Invelope polyprotein GP160 precursor [Contains: Exterior membrane
glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
<pre>fuman immunodeficiency virus type 1 (ELI isolate) (HIV-1).</pre>
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11689; . [1]
SEQUENCE FROM N.A.
MEDLINE-86245056; PubMed-2424612;
"Genetic variability of the AIDS virus: nucleotide sequence analysis
of two isolates from African patients."; Cell 46:63-74(1986).
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or send an email to license@isb-sib.ch).
EMBL; KO3454; AAA44329.1;

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                                                                      Human immunodeficiency
Viruses; Retroid viruse
NCBI_TaxID=11702;
                                                                                                                                                                      01-NOV-1988 (Rel. 09, Created)
01-NOV-1988 (Rel. 09, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Eglycoprotein (GP120); Transmembrane glycoprotein
     SEQUENCE FROM N.A MEDLINE-88219542;
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          PubMed=3369091;
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PIR; B28922; VCLJSC.

HIV: M17450; ENVSC.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.

Pfam; PF00517; GP120; 1.

Pfam; PF00517; GP41; 1.

AIDS; Coat protein; Polyprotein; Glycation; Glycatio
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Farrell K., Wong-Staal F., Gallo R.C., Reitz M.S. (
"Envelope sequences of two new United States HIV-1
Virology 164:531-536(1988).
-!- MISCELLANEOUS: THE SC ISOLATE WAS TAKEN FROM AN
1984 IN SOUTHERN CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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MEDLINE-90347835; PubMed-2384920;
MEDLINE-90347835; PubMed-2384920;
Cheng-Mayer C., Quiroga M., Tung J.W., Dina D., Levy J.;
Cheng-Mayer C., Quiroga M., Tung J.W., Dina D., Levy J.;
"Viral determinants of human immunodeficiency virus type
"Viral determinants of human immunodeficiency virus type
                                                                                                                                                Pfam; PF00516; GP120; Pfam; PF00517; GP41;
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HIV; M38428; ENV$SF162.
InterPro; IPR0003777; GP120.
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J. Virol. 64:4390-4398(1990).
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NCBI_TaxID=11691;
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Envelope polyprotein GP160 precursor [Contains: 9]ycoprotein (GP120); Transmembrane glycoprotein
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Nature 313:450-458(1985).
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         HIV; K02083; ENV$PV22.
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Envelope polyprotein GP160 precursor (Contains: Exterior membrane glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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J. Virol. 64:3792-3803(1990).
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                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency viruses; Retroid viruses; ROBI_TaxID=82834;
                                                                                                                        modified
                                                                                                                                                                                                                                    Reitz M.S. Jr., Hall L., Robert-Guroff M., Laute
Shaw G.M., Kong L.I., Weiss S.H., Waters D., Ga.
"Viral variability and serum antibody response
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                        MEDLINE=95127297;
                                                                                                                                    SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation European Bioinformatics Institute. There are no restrictions on it by non-profit institutions as long as its content is in no was
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IPR000328; Env_GP4:
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Envelope polyprotein GE
glycoprotein (GP120); T
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"Complete nucleotide sequences of virus.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gallo R.C., Wong-Staal F.;
Submitted (APR-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Viruses; Retroid
NCBI_TaxID=11706;
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InterPro; IPR000777; GP120.
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Epi60 precursor (Contains: Exterior membrane
Transmembrane glycoprotein (GP41)].
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! F.;
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es; Retroviridae; Lentivirus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=85228248; PubMed=2988795;
Crowl R., Ganguly K., Gordon M., Conroy R.,
Shaw G.M., Wong-Staal F., Reddy E.P.;
"HTLV-III env gene products synthesized in
antibodies present in the sera of AIDS pati
Cell 41:979-986(1985).
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InterPro; IPR000777; GP120.
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PF00517; GP41; 1
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996 (Rel. 33, Last sequence update)
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999 (Rel. 38, Last annotation update)
polyprotein GP160 precursor [Contains: Exterior membrane
tein (GP120); Transmembrane glycoprotein (GP41)].
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                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; Retroid
NCBI_TaxID=11678;
[1]
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Equipment of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the contains of the cont
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                                              "Assignment of intrachain disulfide bonds and characterization of potential glycosylation sites of the type I recombinant human immunodeficiency virus envelope glycoprotein (gp120) expressed in Chinese hamster ovary cells.";
J. Biol. Chem. 265:10373-10382(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type 1 (BH10 isolate) (HIV-1). Viruses; Retroid viruses; Retroviridae; Lentivirus.
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE=85111123; PubMed=2578615;
                                                                                                                                                                                                                                                   Nature
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  SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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35; Conser
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Raifalski J.A., Whitehorn E.A.,
Petteway S.R. Jr., Pearson M.L.,
S., Ghrayeb J., Chang N.T., Gal
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InterPro; IPR000328; Env_GP41.
Pfam; PF00517; GP41; 1.
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Caride E., Hertogs K., Larder B., Dehertogh P., Brindeiro R.,
Machado E., de Sa C.A.M., Eyer W., Passioni L.F.C., Menezes J.A.,
Calazans A.R., Tanuri A.;
                                                                                                                                                                                                                                                                                                                                                                                                                         Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Envelope glycoprotein (Fragment).
                                                           122
122 AA;
                                                                                                                                                                                 122
14716 MW; CB39CE85DADE28FE CRC64;
                                                                                                                                     95.98;
                                                                                                                       2;
                                                                                                                                     Score 189; DB 15; Length 122; Pred. No. 1.1e-15;
                                                                                                                       Mismatches
                                                                                                                         0;
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RESULT 12
Q74599
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A Steenbeke T., Halloran M., Fance...
A Sodroski J.G.;
T "Changes in human immunodeficiency virus type 1 envert responsible for the pathogenicity of a multiply par immunodeficiency virus (SHIV-HXBCZ).";
T Virol. 73:976-984(1999).
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                                                     Query Match
Best Local S
Matches 35
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Q74599;
Q1-NOV-1996
Q1-NOV-1996
Q1-DEC-2001
                                                                                                      Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases.
EMBL; D86068; BAA12995.1; ..
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
SEQUENCE 856 AA; 97287 MW; 238042A234C56685 CRC64;
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                                                                                                                                                                                                                                                                     Cloyd M.W., Moore B.E.;
"Spectrum of Biological Properties
(HIV-1) Isolates.";
Virology 174:103-116(1990).
                                                                                                                                                                                                                                                                                                                                         STRAIN-MCK1
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                                                                                                                                                                                                                  Iwatani Y.;
 638
                                                                                                                                                                                                                                                                                                                        MEDLINE=90101366;
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              YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
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                                                      35; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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                                                     Conservative
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                                                                                                                                                                                                                                                                                                                         PubMed=1688473;
                                                                97.0%;
97.2%;
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97.2%;
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Last sequence up
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                                                   Score 191; DB 15;
Pred. No. 4.5e-15;
0; Mismatches 1;
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Pred. No. 4.5e-15;
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RESULT Q74090

13

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YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36

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RESULT 14
Q9YXR6
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Q9YXR6;
01-MAY-1999
01-MAY-1999
01-DEC-2001
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01-NOV-1996
01-DEC-2001
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Q74090;
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                                                                                                                                                                                 "HÎV-1 subtypes among blood donors from Rio de Janeiro, Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases EMBL, AF034037; AAC79289.1; -
InterPro; IPR000328; Env_GP41.
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Costa L.J., Telles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (JUN-1996) to the EMEL; D86069; BAA13003.1; IRRO00328; ENV GP41.
InterPro; IPRO00777; GP120.
                                                                                   SEQUENCE
                                                                                                                                              Transmembrane.
                                                                                                                                                               Pfam; PF00517; GP41; 1.
                                                                                                                                                                                                                                                                                                                              STRAIN=RJ96BRP004;
                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                      Viruses; Retroid
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=90101366; PubMed=1688473; Cloyd M.W., Moore B.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=PM213;
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NCBI_TaxID=11676;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Envelope
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-PM213;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Spectrum of Biological Properties of Human (HIV-1) Isolates.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Coat protein; Glycoprotein; Polyprotein; Transmembrane. NCE 856 AA; 97396 MW; FE3E784C423C108C CRC64;
      l Similarity
34; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity
35; Conserv
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                                                                                   122 AA;
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      Conservative
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                                                                                   14702 MW;
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97.2%;
                  95.9%;
                                                                                                                                                                             Env_GP41.
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19,
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Brindeiro R.,
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Score 189; DB 15;
Pred. No. 1.1e-15;
2; Mismatches 0;
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Mismatches 1
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, Schable C., Pieniazek D.,
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Query Match
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01-NOV-1996
01-NOV-1996
01-DEC-2001
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SEQUENCE FROM N.A.
BUCKLET C.E., BUCKLET-White A.J., Willey R.L., MCCOy U.,
BUCKLET C.E., BuckLet White A.J., Willey R.L., MCCOy U.,
BUCKLET C.E., BuckLet White A.J., Willey R.L., MCCOy U.,
BUCKLET C.E., BuckLet White A.J., Willey R.L., MCCOy U.,
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Dai L.C., Ji++~~
                                                                                                               Pfam;
AIDS;
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MEDLINE-86281827; PubMed-3016298;
Medline-86281827; Meddelman H.E., Koenig
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EMBL; U12053; AAA76685.1;
EMBL; U12036; AAA76671.1;
                                                                                     SEQUENCE
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NCBI_TaxID=11676;
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AEDLINE=92219406; PubMed=1373204;

AEDLINE=92219406; PubMed=1373204;

Dai L.C., Littaua R., Takahashi K.,

Dai L.C., Littaua R., Takahashi K.,

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Viruses; Retroid viruses; Retroviridae;
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InterPro; IPR000777; GP120.
                                                                                                                                                                                           InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                      EMBL; M19921; AAA44992
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AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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                                                                                                            PF00516; GP120;
PF00517; GP41; [
Coat protein; G]
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PF00517; GP41; 1.
Coat protein; Envelope protein; Glycoprotein;
Similarity
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                                                                                  protein;
854 AA;
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                                                                               Glycoprotein; Polyprotein; Transmembrane 97124 MW; ABA0AlBF36D5595A CRC64;
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virus type 1 at amino acid 585
CD8+ A24-restricted cytotoxic T
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DB 15;
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                          Length 854;
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Matches 35
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Q72502;
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AIDS;
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Matches
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01-NOV-1998
01-DEC-2001
                                       Viruses; Retroid
NCBI_TaxID=57667;
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Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID-11676;
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SEQUENCE FROM N.A. MEDLINE=99098984;
                                                                         Simian-Human immunodeficiency
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MEDLINE=86281827; PubMed=3016298;
MEDLINE=86281827; PubMed=3016298;
MEDLINE=86281827; PubMed=3016298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Salminen M.O., Koch C., Sanders-Buell E., Ehrenberg P.K.,
Michael N.L., Carr J.K., Burke D.S., McCutchan F.E.;
"Recovery of virtually full-length HIV-1 provirus of diverse
                                                                                                  Envelope glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               molecular clone."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Martin M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=NL4-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Production of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Virology 213:80-86(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from primary virus cultures using the polymerase chain reaction.";
                                                                                                                                                                                                                                                               1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                           YTSLIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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Pro; IPR000328; Env_GP41.
Pro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                       PF00516; GP120
PF00517; GP41;
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                                                         viruses;
 PubMed=9882298
                                                                                                                                                                                                                                                                                                                                                              Glycoprotein; Pólyprotein; Transmer
214 H -> L (IN REF. 2).
530 A -> S (IN REF. 2).
739 G -> D (IN REF. 2).
97005 MW; FF2264B3841D1220 CRC64;
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97.2%;
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                                                         Retroviridae;
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SEQUENCE FROM
STRAIN=LW852
                                                                                                                                                                                                                                                                                                                                                                MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                          InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                              Submitted (JUL-1994) to the EMBL/GenBank/DDBJ databases EMBL; 012035; AAA76670.1; -.
                                                                                                                                                                                                                                                                                                 Mulder K.E.;
                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. STRAIN=LW87-2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Envelope glycoprotein (Fragment).
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InterPro; IPR000777; GP120.
Pfam; PF005516; GP120; 1.
Pfam; PF00517; GP41; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-LW852;
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J.,
Robert G., Kong L., Weiss S., Waters D., Gallo R., Blatt
"Viral variability and serum antibody response in a la
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Q78243;
Q1-NOV-1996
STRAIN-LW90-2;
MEDLINE-95127297; PubMed-7826699;
MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.
"Viral variability and serum antibody response in a laborato
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Q89797;
                                                                                                                              Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE-89352106; PubMed=2765297;
Federico M., Titti F., Butto S., Orecchia
Macchi B., Mangiano N., Verani P., Rossi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Verani P., Rossi G.B.; "Sequence analysis of HIV-1 proviral DNA from chronically infected HUT-78 cellular clone.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus type Viruses; Retroid viruses; Retrovir NCBI_TaxID=11676;
                                                                                            SEQUENCE FROM N.A.
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InterPro; IPR000777; GP120.
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NCE 851 AA; 96630 MW; 1A3767B9B7E98027
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35; Conserv
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F., Federic M.,
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01-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-95127297; PubMed-7826699; Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Shaw G., Kong L., Weiss S., Watters D., Gallo R., Blatt "Viral variability and serum antibody response in a lainfected with HIV type 1 (HTLV type IIIB)."; AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                              01-NOV-1996 (TrEMBLrel. 01-DEC-2001 (TrEMBLrel.
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InterPro; IPR000377; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS: Coat protein; G1ycoprotein; Polyprotein; Transmembrane.
NON_TER 747 747
NON_TER 747 AA; 84250 MW; 732E836A52245F14 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
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Mulder K.E.;
Submitted (JUL-1994) to
EMBL; U12032; AAA76668.1
                                                                           MEDLINE=95127297; PubMed=7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blatt
"Viral variability and serum antibody response in a la
infected with HIV type 1 (HTLV type IIIB).";
ALDS Res. Hum. Retroviruses 10:1143-1155(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=LW87-1;
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                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN=LW881;
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NCBI_TaxID=11676;
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                                                                                                                                                                                                                         Human immunodeficiency virus type 1.
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35; Conserv
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Pred: No.
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AC Q706
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Q70604
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Pfam; PF00517; GP41; 1
                                                                                                                                                                                                                                                                                                                                                            MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J.
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Bla
"Viral variability and serum antibody response in a
infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Viruses; Retroid
NCBI_TaxID=11676;
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Viruses; Retroid
NCBI_TaxID=11676;
                    Human immunodeficiency virus
                                        Envelope
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InterPro; IPR000777; GP120.
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                                                                                                                                                                                                                                                                                                                        Mulder K.E.;
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                                                                                                                                           YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
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35; Conser
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35; Conservative
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                                       glycoprotein
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           viruses;
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           Retroviridae;
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Pred. No.
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Database :
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Listing first 45 summaries
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Perfect score:
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Maximum DB seq length: 2000000000
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1: sp_archea:*
2: sp_bacteria
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197
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993-2003 Compugen Ltd.
sp_vertebrate:*
sp_unclassified:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

16.	<b>1</b> 25	14	13	12	11	10	9	8	7	6	5	4	ω	2	1	Result
188	189	189	191	191	191	191	191	191	191	191	191	191	191	191	191	Score
95.4	95.9	95.9	97.0	97.0	97.0	97.0	97.0		97.0	97.0	97.0	97.0	97.0	97.0	97.0	Query Match 1
122	122	122	856	856	856	854	854	852	851	752	752	752	748	747	645	Length [
15	15	5	15	15	15	15	15	15	15	15	15	15	15	15	15	뮕
Q9YXR2	090IW0	Q9YXR6	Q74090	Q74599	092877	Q72502	Q85582	Q89797	Q78243	Q70608	Q70605	Q70604	Q70606	270607	Q993A6	ID
human	human :	human	Q74090 human immun	Q74599 human immun	092877 simian-huma	human	Q85582 human immun	human	. Q78243 human immun	human	human	human	_	Q70607 human immun	Q993a6 human immun	Description

45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
185	185	185	185	186	186	186	186	186	186	186	186	186	186	186	186	187	187	187	188	188	188	188	188	188	188	188	188	188
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15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Q9YYZ5	Q9YYX0	09IJN6	Q9QIV1	056109	Q90SM7	056566	Q73303	092761	Q9QKJ5	Q9QKJ6	Q9QKJ4	Q9QKJ3	Q9EAA3	Q9IJN5	Q9YXP1	Q78705	090178	Q994B6	Q97013	Q8Q367	040222	Q69996	Q70008	Q78119	Q9IJP2	Q9IJQ3	Q9IJR0	Q9XXP0
Q9yyz5	Q9yyx(	Q9ijn6	Q9qiv1	056109	Q90sm7	056566	073303	092761	Q9qkj:	Q9qkj6	Q9qkj4	Q9qkj:	. Q9eaa3	Q9ijn5	Q9yxp1	278705	090178	Q994b6	Q97013	Q8q367	040222	269996	Q7000£	Q78119	Q9ijpi	Q9ijq:	Q9ijr(	Q9yxp(
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## ALIGNMENTS

Qy	Ma Qu	SQ	FT	S W	DR	DR	DR	DR	RL	RT	RT	RT	RA	RA	RX	RC	RΡ	RN	0 X	8	SO	G I	J	DT	DĪ	DŢ	AC	Į,	RESULT
1 YTGLIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36 	Query Match 97.0%; Score 191; DB 15; Length 645; Best Local Similarity 97.2%; Pred. No. 3.4e-15; Matches 35; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	E 645 AA; 7	NON_TER 1 1	AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;	Pfam; PF00517; GP41; 1.	Interero; 198000777; GP120. Pfam; PF00516; GP120; 1.	InterPro; IPR000328; Env_GP41.	EMBL; AF321563; AAK18810.1;	Proc. Natl. Acad. Sci. U.S.A. 98:4587-4592(2001).		influences	"Localization of CD4+ T cell epitope hotspots to exposed strands of	White S.W., Doherty P.C., Hurwitz J.L.;	Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M.,	MEDLINE=21192672; PubMed=11287644;	STRAIN=1007;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=11676;	Viruses; Retroid viruses; Retroviridae; Lentivirus.	Human immunodeficiency virus type 1.	ENV.	nvelone alvoonrotein	(TrEMBLrel 19, Last	(TrEMBLrel 17,	01-JUN-2001 (TremBLrel. 17, Created)		0993A6 PRELIMINARY: PRT: 645 AA	ILT 1

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq
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Pred. No. is the number of results predicted by chance to I score greater than or equal to the score of the result being and is derived by analysis of the total score distribution
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length: 2000000000
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179
1 LIHSLIEESONOOFKNI
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. 147.792 Million cell updates/sec
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1: /SIDS2/gcgdata/
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/SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002.
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Viral core polypep	ABB01534	22	33	100.0	179	10
Viral DP178/107-li	ABB00798	22	33	100.0	179	9
Viral DP178/107-li	ABB00635	22	33	100.0	179	8
Viral DP178/107-1i	ABB00069	22	33	100.0	179	7
Core polypeptide f	AAY89390	21	33	100.0	179	6
Core polypeptide f	AAY88710	21	33	100.0	179	رن ن
HIV-1 isolate LAI	AAB14668	21	33	100.0	179	4
T716 peptide fragm	AAB52819	21	33	100.0	179	ω
T20/DP178 peptide	AAB52685	21	33	100.0	179	2
DP-178 homologue 6	AAR64395	16	33	100.0	179	1
Description	ID	DB .	Match Length DB	Match	Score	No.
				)		,

	45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
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	AAY22912	AAW17011	AAR98398	136	AAB54934	AAB77789	AAB77629 .	AAU13342	AAU13182	ABB02272	ABB02111	ABB00796	ABB00634	AAY89388	AAB14670	AAB52687	AAR64397	AAB54933	AAB77790	AAU13343 ·	ABB02273	ABB00797	AAY89389	AAB14669	AAB52686	AAR64396	AAB54932	AAB77791	AAB77630	AAB77065	AAU13344	8	261	2	ABB02112
	SEQ ID NO. 108 fro		œ	178 derived fr	-HIV peptide	י סי	polypeptide	-like/DP107-	8-liké/DP107-	l core polype	l core polype	_	1 DP178/107-1	Core polypeptide f	HIV-1 isolate LAI	T20/DP178 peptide	8 homologue	Anti-HIV peptide D	olypeptide	-like/DP107-	l core polyp	Viral DP178/107-li	polypeptide	HIV-1 isolate LAI	/DP178 peptide	78 homoloque	HIV peptide	polypeptide	polypeptide	polypeptid	8-like/DP107-	8-like/DP107-	8-like/DP107-	l core polype	Viral core polypep

### ALIGNMENTS

RESULT 1

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AAR64395
                                                                                                                                                                                                                                                          antiviral activity; DP-178; DP-107; diagnostic; HIV-1LAI;
human immunodeficiency virus; transmembrane protein; gp41;
alpha helix; leucine zipper; DP-185.
                                                                                                                                                                                                                                                                                                                                                                          AAR64395;
 07-JUN-1993;
                         07-JUN-1994;
                                                                                                                                    Modified-site
                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                  DP-178 homologue 64 derived from HIV-1 has antiviral activity.
                                                                                                                                                                                                                                                                                                                                             25-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                    AAR64395 standard; Peptide; 33 AA.
                                                     22-DEC-1994.
                                                                               WO9428920-A.
                                                                                                                                                                                            Modified-site
93US-0073028.
                         94WO-US05739
                                                                                                                                     33
                                                                                                                                              /note= "optionally has an amino, acetyl,
    9-fluorenylmethoxy-carbonyl, hydrophobic or
    macromolecular carrier gp. attached"
                                                                                                                       /note=
                                                                                                                                                                                                        Location/Qualifiers
                                                                                                      "optionally has a carboxyl, amido, hydrophobic or macromolecular carrier gp. attached" \,
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RESULT 2
AAB52685
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        forms a putative alpha helix at the C-terminal end of the 9941. It forms a putative alpha helix at the C-terminal end of the 9941 ectodomain, and complexes with DP-107 (corresponds to amino acids 558-595) which contains a leucine zipper motif. The peptides complex via non-covalent protein protein interactions, and possess anti-viral activity. The peptide derivs were identified by a computer assisted peptide sequence search. The peptides inhibit transmission to uninfected cells, and can also be used as type and/or subtype
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Computer search generated synthetic peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV transmission
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The present
helical segr
                                  Claim 12;
                                                             Administration of peptide agents with a sequence corresponding partial-length T20/DP18 or T21/DP107 formyl peptide receptor antagonist is used to modulate inflammation -
                                                                                                         WPI;
                                                                                                                               Wang
                                                                                                                                                                              05-MAY-1999;
                                                                                                                                                                                                      05-MAY-2000;
                                                                                                                                                                                                                            09-NOV-2000
                                                                                                                                                                                                                                                  WO200066622-A1
                                                                                                                                                                                                                                                                        Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                 chemoattractant.
                                                                                                                                                                                                                                                                                                          Antiinflammatory; T20/DP178; gp41 ectodomain; HIV-1 fusion; formyl peptide receptor family; FPR; inflammatory response
                                                                                                                                                                                                                                                                                                                                            T20/DP178 peptide
                                                                                                                                                                                                                                                                                                                                                                     23-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                           AAB52685
                                                                                                                                                                                                                                                                                                                                                                                                                   AAB52685 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                specific diagnostic tools
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR64365-97 are peptide derivs. of DP-178 (AAR64364) which have been truncated at the amino terminus. DP-178 corresponds to amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Barney SO,
Petteway SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UYDU-) UNIV DUKE
                                                                                                                                                    (USSH ) US DEPT HEALTH & HUMAN SERVICES
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                                                                                                         2000-656493/63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                  Page 25; 148pp; English.
                                                                                                                               Oppenheim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page. 133;
                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33 AA;
sequence
ment of th
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                                                                                                                                                                                                      2000WO-US12371.
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                                                                                                                                                                              99US-0132686.
                                                                                                                                                                                                                                                                                                                                              fragment #63.
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 the
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                                                           modulate
s a peptide
ectodomain
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Pred. No. 1
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                                                          inflammation
                                                                                                                               Gong W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
of HIV-1
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1.6e-15;
es 0;
of T20/DP178. protein gp41.
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                                                                                                                               Murphy PM
                                                                                                                                                                                                                                                                                                           response up-regulation;
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 T20/DP178
T20/DP178
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RESULT 3
AAB52819
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       located in the carboxyl terminus of the gp41 ectodomain. gp41 plays a critical role in the fusion of HIV-I and host cell membranes. T20/DP176 interacts with members of the formyl peptide receptor (FPR) family and thereby up-regulates an inflammatory response, and acts as a potent chemoattractant and activator of human peripheral blood phagocytes (but not T cells). The present peptide can be used to modulate an
                                                                                     The present invention relates to peptide fragments of T20/DP178 and T21/DP107 (see AAB52623-B52818 and AAB52823-B52824). T20/DP178 and T21/DP107 are helical segments of the ectodomain of HIV-1 protein gp41 plays a critical role in the fusion of HIV-1 and host cell membranes. T20/DP178 and T21/DP107 interact with members of the formyl peptide receptor (FPR) family and thereby up-regulate an inflammatory response, and act as potent chemoattractants and activators of human
Sequence
                                          peripheral blood phagocytes (but not T cells). The peptides of the present invention can be used to modulate an inflammatory response subject. The present sequence is a peptide isolated in the present
                                                                                                                                                                                                                                                      Administration of peptide agents with a sequence corresponding partial-length T20/DP178 or T21/DP107 formyl peptide receptor
                                                                                                                                                                                                                                                                                                                              Wang JM,
                                                                                                                                                                                                                                                                                                                                                                                             05-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human immunodeficiency virus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chemoattractant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T716 peptide fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB52819;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB52819 standard;
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                                                                                                                                                                                                             Example 1;
                                                                                                                                                                                                                                                                                                   WPI; 2000-656493/63
                                                                                                                                                                                                                                                                                                                                                              (USSH)
                                                                                                                                                                                                                                                                                                                                                                                                                          05-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200066622-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              formyl peptide receptor
                             invention
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l Similarity 100.0%;
33; Conservative (
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AA;
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                                                                                                                                                                                                                                            to modulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              p178; gp41 ectodomain; HIV-1 fusion; T21/DP107;
family; FPR; inflammatory response up-regulation;
                                                                                                                                                                                                                                                                                                                                 Su S,
                                                                                                                                                                                                              English.
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Pred. No. 1.
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.6e-15;
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anes. T20/DP178
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Query Match Best Local Similarity Matches 33; Conserv

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Score 179; DB 2 Pred. No. 1.6e-1

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                                                                                                                                                                                                                                                immunodeficiency virus) strains and isolates, comprising the administration of a peptide which corresponds to or minics highly conserved portions of gp41 which are important in mediating the process of viral entry into host cells. Such peptides can correspond to or minic the coiled coil solution structure of the N-helical domain (the heptad repeat region), or can correspond or minic the C-helical domain (the transmembrane-proximal amphipathic alpha-helical segment) or the gp41 core 6-helix bundle, which is formed by the interaction of the N- and C-helical domains of three gp41 proteins. The peptides can be administered either singly or as a combination (particularly a combination of N-helical and C-helical peptides), and can be multimerised. For example, N- and C-helical domain peptides can be alternately linked together to form a pentide which ministers the core alternately linked together to form a pentide which ministers the core
                                                       and isolates. The peptide compositions may be administered as a prophylactic or therapeutic vaccine to generate antibodies which reduce or inhibit the ability of HIV to infect uninfected cells. A composition
                                                                                                                              alternately linked together to form a peptide which mimics the core 6-helix bundle. Administration of the peptide(s) generates a humoral response, with the production of antibodies against gp41 structures involved in viral entry. As these portions of gp41 are well conserved, such antibodies may be effective against a broad range of HIV strains such antibodies may be effective against a broad range of HIV strains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 from the C-helical domain of the gp41 envelope glycoprotein from HIV-1 group M, subtype B, isolate LAI. The invention relates to ra a neutralising antibody response to a broad spectrum of HIV (human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Raising neutralizing antibody response to human immunodeficiency virus, comprises administering a polypeptide capable of forming a stable coiled-coil solution structure -
                 comprising polyclonal or monoclonal antibodies can be administered to reduce HIV infection of uninfected cells. Antibodies raised against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequences AAB14604-B14606 and AAB14607-B14670 represent peptides derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-465959/40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-JAN-1999; 99US-0115404.
07-JAN-2000; 2000US-0480336.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV-1; gp41 C-helical domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV-1 isolate LAI gp41 C-helical domain peptide P-18, fragment #62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-NOV-2000 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JAN-2000; 2000WO-US00456
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WEISS C D.
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                                            function as a pharmacoligically useful peptide for the treatment or prevention of a disease. The core polypeptides are bloactive peptides selected from a growth factor, cytokine, differentiation factor, interleukin, interferon, colony stimulating factor, hormone or angiogenic factor. The peptides of the invention can be used for inhibiting viral infection and can be used in anti-viral and anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                              The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any polypeptide that may be introduced into a living system and that can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein; HIV-1; HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; viral; anti-fusogenic; differentiation factor; interleukin; interferon;
Sequence
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                                                                                                                                                                                                                                                                                                                                                                                        A new hybrid polypeptide with enhanced pharmacokinetic properties
                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-136792/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Barney S, Guthrie KI,
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RESULT 6
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                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to hybrid polypeptides comprising enhancer peptide sequence linked to core polypeptides. The enhancer polypeptides are derived from various retroviral envelope (gp41) protein sequences, especially from HIV-1, HIV-2 and SIV. The enhancer peptides enhance the pharmacokinetic properties such as increasing the half-life of any core polypeptide that they are linked to. The core polypeptides are any
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Retrovirus; hybrid polypeptide; enhancer; gp41; envelope protein HIV-2; SIV; pharmacokinetic; half-life; growth factor; cytokine; anti-fusgenic; differentiation factor; interleukin; interferon; colony stimulating factor; hormone; angiogenic factor.
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                                                                                                                                                                                                                                                               anti-fusogenic treatments. Sequences AAY88651-Y90055 represent core polypeptide fragments that can be used in the invention. Some sequences among those indicated also comprise enhancer fragments at terminal ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A new hybrid polypeptide with enhanced comprises enhancer sequence \boldsymbol{\cdot}
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                                                                                                                                                                                                                    Sequence
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 ABB00069 standard; Peptide; 33 AA.
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                                                                                                                                                                   Similarity
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Pred. No. 1
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1.6e-15;
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factor; cytokine; viral;
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RESULT 8
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Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV;

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              The invention relates to isolated analogues of the heptad repeat region peptides DP178 and DP107. DP178 and DP107 correspond to amino acids 538-533 (heptad repeat region HR2) and 558-595 (heptad repeat region HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required for
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                                                                                                  HR1) respectively, of HIV-1LAI transmembrane protein gp41. The HR1 and HR2 regions of proteins interact non-covalently with each other and/or with peptides derived from them. This interaction is required normal infectivity of viruses such as RSV and HIV. The heptad repeat region peptide analogues may be used to inhibit respiratory syncytial virus (RSV) infection in a cell. They may also be used to inhibit HIV infection. The present sequence is a peptide provided in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immunodeficiency virus; HIV; respiratory syncytial virus; RSV; virucide; heptad repeat region; transmembrane protein; gp41; HR1; HR
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                                                             Sequence
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                                                                                                                                                                                                                                                                               Disclosure; Page 380; 587pp; English.
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                                                                                                                                                                                         The present invention relates to peptides which exhibit anti-retroviral cactivity. The peptides of the invention (AAUJ259-AAUJ409) comprise DP178-like and DP107-like peptides. The DP178 peptide corresponds to amino acids 639-673 of the transmembrane protein gp41 from human immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide corresponds to amino acids 558-595 of gp41 from HIV-1LAI. The invention CC also relates to a method of identifying compounds that inhibit the CC detecting the formation of a DP107/DP178 complex. The method comprises CC detecting the formation of a DP107/DP178 complex, both in the presence CC or absence of a test compound, in a reaction mixture containing DP107 CC and DP178 peptides. The method is useful for identifying compounds. CC including small molecule compounds, which may themselves exhibit CC antifusogenic, antiviral or intracellular modulatory activity. The CC DP178-like/DP107-like peptides are useful to inhibit human and non-human CC retroviral, particularly HIV, transmission to uninfected cells. The
                                                                                Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 54; 259pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Identifying a compound that inhibits the formation of or disrupts a DPI07/DP178 complex, especially compounds with antifusogenic, antivor intracellular modulatory activity, by detecting the formation of DP107/DP178 complex -
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RESULT 14
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AC AAU13
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                                                                                                                                                                                                                             The present invention relates to peptides which exhibit anti-retroviral cactivity. The peptides of the invention (AAUJ2559-AAUJ4009) comprise CD P178-like and DP107-like peptides. The DP178 peptide corresponds CC to amino acids 639-673 of the transmembrane protein gp41 from human CC immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide CC corresponds to amino acids 558-595 of gp41 from HIV-ILAI. The invention CC corresponds to amino acids 558-595 of gp41 from HIV-ILAI. The invention CC also relates to a method of identifying compounds that inhibit the CC formation of or disrupts a DP107/DP178 complex. The method comprises CC detecting the formation of a DP107/DP178 complex, both in the presence CC or absence of a test compound, in a reaction mixture containing DP107 CC and DP178 peptides. The method is useful for identifying compounds, CC including small molecule compounds, which may themselves exhibit CC antifusogenic, antiviral or intracellular modulatory activity. The CC antifusogenic, antiviral or intracellular modulatory activity. The CC pp178-like/DP107-like peptides are useful to inhibit human and non-human control of the peptides of the DP178-like/DP107-like peptides of the DP178-like/DP107-like peptides of the DP178-like/DP107-like peptides or the DP178-like/DP107-like peptides
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Best Local Similarity
Matches 33; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Identifying a compound that inhibits the formation of or disrupts a DP107/DP178 complex, especially compounds with antifusogenic, antiviral or intracellular modulatory activity, by detecting the formation of a
                                                                                                                                                                        Sequence
                                                                                                                                                                                                                    of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 65;
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                     LIHSLIEESQNQQEKNEQELLELDKWASLWNWF
LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
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RESULT 15
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B
                                                                                                                                                                                                                                The present invention relates to peptides which exhibit anti-retroviral CC activity. The peptides of the invention (AAU12559-AAU14009) comprise CP178-like and DP107-like peptides. The DP178 peptide corresponds CC immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide CC corresponds to amino acids 539-573 of the transmembrane protein gp41 from human CC immunodeficiency virus 1 (HIV-1) isolate LAI. The DP107 peptide CC corresponds to amethod of identifying compounds that inhibit the formation of or disrupts a DP107/DP178 complex. The method comprises detecting the formation of a DP107/DP178 complex, both in the presence or absence of a test compound, in a reaction mixture containing DP107 CC and DP178 peptides. The method is useful for identifying compounds. CC including small molecule compounds, which may themselves exhibit CC antifusogenic, antiviral or intracellular modulatory activity. The CC including small molecule compounds, which may themselves exhibit CC antifusogenic, antiviral or intracellular modulatory activity. The CC retroviral, particularly HIV, transmission to uninfected cells. The
                                                                                              Query Match
Best Local Similarity
                                                                              Matches
                                                                                                                                                                                             present sequence represents one of the DP178-like/DP107-like peptides of the invention.
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                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TRIM-) TRIMERIS INC.
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                    1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
LIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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                                                                          Score 179; DB 22; Pred. No. 1.6e-15; Mismatches 0;
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Search completed: May 16, 2003, 11:12:04 Job time: 30.753 secs

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Minimum DB
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179
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

: PIR\_73:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	ω	2	1		Result
155	157	157	160	161	161	161	161	161	161	162	162	162	162	164	164	166	166	167	170	170	170	170	170	170	179	179	179	179		corp
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### ALIGNMENTS

RESULT 2 S13288 R;O'Brien, W.A.; Koyanagi, Y.; Namazie, A.; Zhao, J.Q.; Diagne, A.; Idler, K.; Zack, Nature 348, 69-73, 1990
A;Title: HIV-1 tropism for mononuclear phagocytes can be determined by regions of gpl A;Reference number: S13288; MUID:91043044; PMID:2172833
A;Accession: S13288 A;Molecule type: mRNA A;Residues: 1-851 <CAR> A;Cross references: EMBL:Z11530; NID:g60192; PIDN:CAA77628.1; PID:g60199 C;Superfamily: type E retrovirus env polyprotein 멍 δõ A;Status: preliminary A;Molecule type: DNA A;Residues: 1-854 <OBR> C;Superfamily: type E re env protein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 31-Oct-1997
C;Accession: \$13288 В δõ R;Carlini, F.
submitted to the EMBL Data Library, November 1991
A;Reference number: S33979
A;Accession: S33985 C; Accession: env polyprotein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence\_revision 19-Mar-1997 #text\_change 26-Aug-1999 RESULT 1 A; Status: preliminary Query Match
Best Local Similarity
Matches 33; Conserv Matches Query Match
Best Local Similarity 639 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 671 1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33 S33985 type E retrovirus env polyprotein 100.0%; ilarity 100.0%; Conservative ( 100.0%; Score 179; DB 2 clarity 100.0%; Pred. No. 1e-13; Conservative 0; Mismatches 0, Score 179; DB 2 Pred. No. 1e-13; 0; Mismatches DB 2; DB 2; 0; 0; Length 851; Length 854; Indels Indels 0; 0; Gaps Gaps 0 0;

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  c;Species:
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                                                                                                                                                                                                                                                                                 F;517-861/Product: transmembrane glycoprotein *status predicted <TMM>F;88,136,141,146,161,165,191,202,239,246,267,281,294,300,306,337,344,361,391,397,402,F;616,621,630,642,679,755,821/Binding site: carbohydrate (Asn) (covalent) *status pre
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C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodefi
F;1-30/Domain: signal sequence #status predicted <SIG>
F;31-516/Product: exterior membrane glycoprotein #status predicted <EXT>
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Cell 40, 9-17,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nberger, J.A.; Papas, T.S.; Ghrayeb, Nature 313, 277-284, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R; Ratner,
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C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
Residues: 1-861 <WAI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Title: Nucleotide sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Date: 17-May-1985
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A; Residues: 1-856 < RAT>
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                                                                                                                                                                                                                          Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Reference number:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Accession: A0397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Keywords: AIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -30/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ross-references: GB:K02013; NID:g326417; PIDN:AAB59751.1; PID:g326424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polyprotein precursor - human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -511/Product: exterior membrane glycoprotein #status predicted <EXT>
2-856/Product: transmembrane glycoprotein #status predicted <TMM>
2-856/Product: transmembrane glycoprotein #status predicted <TMM>
5,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,408
1,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent) #status predic
                                                                                                                        646 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        641 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             env
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                                                                                                                                                                  1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF
  protein
s: human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          host Homo sapiens (man)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ch 100.0%;
l Similarity 100.0%;
33; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    names:
                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 type E retrovirus env polyprotein 
DS; capsid protein; coat protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       precursor - human
gp120/gp41 - human imm
immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sonigo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                coat polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence of the AIDS virus, A90866; MUID:85099333; PMII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #sequence_revision 17-May-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GB:M15654; GB:K02008; GB:K02009;
                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P.; Danos,
                                                                                                                                                                                                        0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 179;
Pred. No. 1
                                                                                                                                                                                                                          Score 179; DB 1
Pred. No. 1e-13;
immunodeficiency
.rus type 1, HIV-1
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                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cole,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Livak, K.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PMID:2981635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         le-13;
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                                                                                                                                                                                                                                             DB 1;
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                     virus
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                                                                                                                                                                                                                                           Length 861;
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Gallo, R.C.;
                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type
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                                                                                                                                                                                                                                                                                                                                                                                      immunodeficiency;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (isolate HTLV-III,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-Jul-1999
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                                                                                                                                                       N;Alternate names: coat polyprotein N;Contains: amino end of coat protein gro;Species: human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 1-357 <STE1>
A; Cross-references: EMBL: X61355; NID: 960179; PIDN: CAA43622.1;
A; Cross-references: EMBL: X61355; Wildemann, B.
                                   R;Burger, H.; Weiser, B.; Flaherty, K.; Gulla, J.;
Proc. Natl. Acad. Sci. U.S.A. 88, 11236-11240, 1991
A;Title: Evolution of human immunodeficiency virus
                                                                                                                   C; Date: 11-Feb-1993 #sequence_revision
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Experimental source: patient 27L A; Note: submitted to the EMBL Data Library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-357 <ST2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A; Accession: S70422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A; Title: Distinct populations of human immunodeficiency
A; Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    envelope protein gp120/gp41 - human immunodeficiency virus C;Species: human immunodeficiency virus type 1, HIV-1 C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_ch
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A;Molecule type: DNA
A;Residus: 1-140','X',142-312,'X',314-357 <STE2>
A;Cross-references: EMBL:X61355; NID:g60179
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Variety: isolate 27B
C;Date: 20-Feb-1995 #sequence_revision
                                                                                                  C; Accession: C41621
                                                                                                                                                                                                                      env polyprotein P - human immunodeficiency virus
                                                                                                                                                                                                                                             C41621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross references: EMBL:X61356; NID:g60181; PIDN:CAA43624.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Steuler, H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Accession: S70422; S21996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Title: Distinct populations of human immunodeficiency
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                     A;Reference
                                                                                                                                             A; Note:
                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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Best Local
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Matches
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                                                                                                                                          host Homo sapiens
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                  number: A41621;
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Retroviruses 8, 53-59, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type E retrovirus env polyprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Storch-Hagenlocher, B.; Wildemann, B.;
                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                            95.0%;
93.9%;
                                                                                                                                          (man)
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                     MUID:92107924;
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Pred.
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2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                gp41;
                                                                                                                     31-Dec-1993 #text_change 26-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                            170;
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                                                                                                                                                             type 1,
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PMID:1763038
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.7e-13;
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.7e-13;
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                                                                             Nguyen,
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                                                                                                                                                                                of coat protein
                                                                             P.N.;
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A;Cross-references: (C;Genetics: A;Gene: env C;Superfamily: type I
A; Residues: 1-856 <STA>
A; Cross-references: GB:
C; Genetics:
                                                                 N;Contains: coat protein gp120; coat protein gp41
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 30-Sep-1988 #sequence_revision 30-Sep-1988 #text_change
C;Accession: A24774
R;Starcich, B.R.; Hahn, B.H.; Shaw, G.M.; McNeely, P.D.; Modrow,
Cell 45, 637-648, 1986
C;HILE: Identification and characterization of conserved and va
A;Reference number: A24774, MUID:86218077; PMID:2423250
A;Accession: A24774
A;Molecule type: DNA
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               env polyprotein precursor - human in N; Alternate names: coat polyprotein C; Species: human immuncater;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A:Gene: env
C:Superfamily: type E retrovirus env polyprotein
C:Superfamily: type E retrovirus env polyprotein; glycoprotein; immunodeficiency;
C:Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency;
E:1-251/Product: coat protein gp120 (fragment) #status predicted <GP1>
E:252-443/Product: coat protein gp41 (fragment) #status predicted <GP2>
E:424-443/Domain: transmembrane #status predicted <TMN>
E:424-443/Domain: transmembrane #status predicted <TMN>
E:9,23,36,48,78,101,107,131,137,143,147,153,188,200,203,351,356,365,377/Binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-443 <BUR>
A; Residues: 1-463 <BUR>
A; Cross-references: GB:M77230; N
A; Note: this virus was isolated
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F;31-511/Product: exterior membrane glycoprotein #status predicted <EXT>
F;512-856/Product: transmembrane glycoprotein #status predicted <TMM>
F;88,136,141,156,160,186,197,230,234,241,262,276,289,295,301,332,339,356,386,392,397,40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Superfamily: type E retrovirus env polyprotein C; Keywords: AIDS; capsid protein; coat protein; glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Note: host Homo sapiens (man)
C;Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change 16-Jul-1999
C;Accession: A03974
C;Accession: A03974
R;Muesing, M.A; Smith, D.H.; Cabradilla, C.D.; Benton, C.V.; Lasky, L.A.; Nature 313, 450-458, 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Title: Nucleic acid
A; Reference number: A:
A; Accession: A03974
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VCLJVL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :1-30/Domain: signal sequence #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      611,616,625,637,674,750,816/Binding site: carbohydrate (Asn) (covalent)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Species: human immunodeficiency virus type 1, HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Sest Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 LIHSLIEESQNQQEKNEQELLELDKWASLWNW 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LIYNLIEESQNQQEKNEQELLELDKWASLWNWF 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1-856 <MUE>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            id structure and expression of the human A93355; MUID:85111157; PMID:2982104
                      GB:K03455; GB:M38432;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GB:K02083; NID:g555008; PIDN:AAB59873.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95.0%;
96.9%;
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93.9%;
                                                                                                                                                                                                                                                                                                            human immunodeficiency virus type 1 (isolate WMJ1)
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א No. 6e-13;
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                      NID:g1906382
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                                                                                                                                         variable regions
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A;Cross-references: EMBL:X61359; NID:g60182; PIDN:CAA43630
R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency vir
A;Reference number: S70417; MUID:92144209; PMID:1736940.
                                                                                                                                                                                                                                                                                                                     envelope protein gp120/gp41 - human immunodeficiency virus type 1 c;Species: human immunodeficiency virus type 1, HIV-1 A;Variety: isolate 28 C;Date: 20-Teb-1995 #sequence_revision 20-Feb-1995 #text_change 01-Dec-2000 C;Accession: S21998; S70425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Gene: env

A;Gene: env

C;Superfamily: type E retrovirus env polyprotein
C;Keywords: capsid protein; coat protein; glycoprotein; pc
F;1-29/Domain: signal sequence #status predicted <SIG>
F;30-861/Product: env polyprotein #status predicted <EPP>
F;87,129,135,140,143,159,163,187,198,234,241,262,276,295;
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                                                                                                                                                                                                                   A; Description: Distinct
A; Reference number: S219
A; Accession: S21998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-861 <G
C; Genetics:
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                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-358 <STE1>
                                                                                                                                                                                                                                                                               R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991
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C;Accession: B28922
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                  A; Molecule type: DNA
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                                                       A; Accession: S70425
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                                       Status: preliminary
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
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-222, 'X', 224-358
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93.9%;
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93.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of two new United States HIV-1 isolates MUID:88219542; PMID:3369091
<STE2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 170; DB Pred. No. 1.2e 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
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of HIV-1 in
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l.2e-12;
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                                                                                                 type 1 in blood
                                                                                                                                                         PID: 960183
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EMBL: X61359;

NID:g60182;

PIDN:CAA43630.1;

PID:960183

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envelope protein gp120/gp41 - human immunodeficiency virus type C:Species: human immunodeficiency virus type 1, HIV-1 A:Variety: isolate 4B C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change C:Accession: S22004; S70419
R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.; submitted to the EMBL Data Library, July 1991 A;Description: Distinct populations of HIV-1 in blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                env protein - human immunodeficiency virus type 1
C;Species: human immunodeficiency virus type 1, HIV-1
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
C;Accession: S13289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: human immunodeficiency virus type 1 HIV-1 (;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change C;Accession: T09448 (R;Pang, S.; Vinters, H.V.; Akashi, T.; O'Brien, W.A.; Chen, I.S. submitted to the EMBL Data Library, July 1996
                                                                                                                                                                                                                                         Š
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                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                 C;Superfamily: type E retrovirus env polyprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;O'Brien, W.A.;
Nature 348, 69-73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
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                                                                                                                                                       RESULT 14
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                                                                                                                                                                                                                                                                                                                                                                                                               ature 348, 69-73, 1990
(Title: HIV-1 tropism for mononuclear phagocytes can be Reference number: $13288; MUID:91043044; PMID:2172833
(Accession: $13289)
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tatus: preliminary; translated from GB/EMBL/DDBJ
Molecule type: DNA
Residues: 1-847 <PAN>
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Residues: 1-847 <OBR>
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                                                                                                                                                                                                                                                                           Pred. No. 3.7
2; Mismatches
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Pred. No. 3.7e-12;
                                                                                                                                                                                                                                                                                                             Score 166;
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                                   Σ.
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Search completed: May 16, Job time: 11.1325 secs

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A;Gene: env
C;Superfamilly: type
C;Keywords: AIDS;
F;1-30/Domain: sign
F;31-509/Product:
F;510-855/Product:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Note: host Homo sapiens (man)
C; Date: 17-May-1985 #sequence_revision 17-May-1985 #text_change
C; Accession: A03976
R; Sanchez-Pescador, R.; Power, M.D.; Barr, P.J.; Steimer, K.S.;
Science 227, 484-492, 1985
  В
                                                                                                                                                                                                                                                                                                                                               A;Cross-references: GB:K02007; NID:g328658; PIDN:AAB59882.1; PID:g328666 C;Genetics:
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A; Residues: 1-855 <SAN>
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A; Residues: 1-292, 'X', 294-357 <STE2>
A; Cross-references: EMBL: X61353; NID: g60188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B. AIDS Res. Hum. Retroviruses 8, 53-59, 1992
A;Title: Distinct populations of human immunodeficiency A;Reference number: S70417; MUID:92144209; PMID:1736940
                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: A03976
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R;Steuler, H.; Storch-Hagenlocher, B.; Wildemann, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-357 <STE1>
                                                                                                                                                                    F;610,624,636,815/Binding site: carbohydrate (Asn) (covalent)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N; Alternate names: coat polyprotein
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                                                                                                                                                                                                                                     Superfamily: type E retrovirus env polyprotein;
Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunodeficiency; polyp;
1-30/Domain: signal sequence #status predicted <SIG>
;31-509/Product: exterior membrane glycoprotein #status predicted <EXT>
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                                                                                     Matches
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IYTLLEESQNQQEKNEQELLELDKWASLWNWF
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                                                                                                                                                                                          364, 388, 394, 400, 408, 445
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Result
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                                                                                      CARBOHYD
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EMBL; RF038399; AAB99976.1; --
EMBL; AF033819; AAC82596.1; --
HIV; K03455; ENVSHXB2.
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virus.";
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MEDLINE=87299196; PubMed=3040055;
Ratner L., Fisher A., Jagodzinski
Gallo R.C., Wong-Staal F.;
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NCBI_TaxID=11706;
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InterPro; IPR000777; GP120.
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viruses; Retroviridae; Lentivirus
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Crowl R., Ganguly K., Gordon M., Conroy R.,
Shaw G.M., Wong-Staal F., Reddy E.P.;
"HTLV-III env gene products synthesized in
antibodies present in the sera of AIDS pati-
cell 41:979-986(1985).
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InterPro; IPR000777; GP120.
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Viruses; Retroid viruse
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996 (Rel. 33, Last sequence update)
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999 (Rel. 38, Last annotation update)
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Glycoprotein; Transmembrane;

GLYCOPROTEIN

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MEDLINE=95127297;
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                                 Human immunodeficiency virus type 1 (BRI Viruses; Retroid viruses; Retroviridae;
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MEDLINE-85099333; PubMed=2981635;
Wain-Hobson S., Sonigo P., Danos
"Nucleotide sequence of the AIDS
Cell 40:9-17(1985).
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15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
91ycoprotein (GP120); Transmembrane glycoprotein
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J. Virol.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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MEDLINE=90317877; PubMed=1695254;
MEDLINE=90317877; PubMed=1695254;
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Viruses; Retroid viruses;
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IPR000777; GP120.
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01-FEB-1991 (Rel. 17, Last sequence update)
15-7UL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Exterior membrane
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NCBI_TaxID=11691;
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contain glycoprotein (GP120); Transmembrane glycoprote
                                                  PIR;
HIV;
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EMBL; X01762;
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SEQUENCE FROM N.A.
MEDLINE=85111157; PubMed=2982104;
MEDLINE=85111157; Mar. Smith D.H., Cabradi
                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus type 1 (PV22 isolate) Viruses; Retroid viruses; Retroviridae; Lentivirus NCBI_TaxID=11700;
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                                                                                                                                                                                                    the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                       AIDS/lymphadenopathy retrovirus.";
Nature 313:450-458(1985).
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CAA25903.1;
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Pfam; PF00516;

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T 15-JUL-1999 (Rel. 38, I)
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                                   Human immunodeficiency virus type 1 (SC Viruses; Retroid viruses; Retroviridae; NCBI_TaxID=11702; [1]
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-i- MISCELLANEOUS: THE SC ISOLATH 1984 IN SOUTHERN CALIFORNIA.
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States HIV-1 isolates.";
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Starcich B.R., Hahn B.H., Shaw G.M., McNeely P.D.,
Parks E.S., Parks W.P., Josephs S.F., Gallo R.C., V
"Identification and characterization of conserved a
regions in the envelope gene of HTLV-III/LAV, the 1
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MEDLINE-90317906; PubMed-2370688;

York-Higgins D., Cheng-Mayer C., Bauer D.,

"Human immunodeficiency virus type 1 cellu

replication, and cytopathicity are linked

the viral genome.";
                                                                                                                                                                                                                                                                                                  InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Polyprotei
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01-FEB-1991 (Rel. 17, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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Pfam; PF00516; GP120; 1
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Pol
Signal.
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P05880;
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01-NOV-1988 (Rel. C
15-JUL-1999 (Rel. 3
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Science 232:1548-1553(1986).
                                                                                                                                                                                                    the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/ar or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Viruses;
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NCBI_TaxID=11705;
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Viruses; Retroid viruses; Retroviridae; Lentivirus.
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                                                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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( MEDLIND-85090453; PubMed=2578227;
Sanchez-Pescador R., Power M.D., Ban
Stempien M.M., Brown-Shimer S.L., Ge
Levy J.A., Dina D., Luciw P.A.;
"Nucleotide sequence and expression (ARV-2).";
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21-JUL-1986 (Rel. 01, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Envelope polyprotein GP160 precursor [Contains: Egycoprotein (GP120); Transmembrane glycoprotein
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TRANSMEMBRANE GLYCOPROTEIN.

BY SIMILARITY.

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Renard A., Ra
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PIR, A03976; VCLJA2.
HIV; K02007; ENVSSF2.
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PP00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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13-AUG-1987 (Rel. 05, Last sequence update)
13-AUG-1987 (Rel. 05, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Envelope polyprotein GP160 precursor (Contains: Exterior membrane
glycoprotein (GP120); Transmembrane glycoprotein (GP41)].
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InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
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Alizon M., Wain-Hobson S., Montagnier L., Sonigo P.
"Genetic variability of the AIDS virus; nucleotide
of two isolates from African patients.";
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Viruses; Retroid viruses; Ret
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## SUMMARIES

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## ALIGNMENTS

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1 LIHSLIEESONQOEKNEQELLELDKWASLWNWF 33 	Query Match 100.0%; Score 179; DB 15; Length 645; Best Local Similarity 100.0%; Pred. No. 8.5e-14; Matches 33; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	Transmemorane.  NON_TER 1 1  SEQUENCE 645 AA; ·72485 MW; B076514BE93362EC CRC64;	Pfam; PF00510; GF120; 1. Pfam; PF00517; GP41; 1. AIDS; Coat protein; Envelope protein; Glycoprotein; Polyprotein;	EMBL; AF321563; AAK18810.1; InterPro; IPR000328; Env_GP41. InterPro; IPR000777; GP120.	Proc. Natl. Acad. Sci. U.S.A. 98:4587-4592(2001).	"Localization of CD4+ T cell epitope hotspots to exposed strands of HIV envelope glycoprotein suggests structural influences on antigen	Surman S., Lockey T.D., Slobod K.S., Jones B., Riberdy J.M., White S.W., Doherty P.C., Hurwitz J.L.;	SEQUENCE FROM N.A. STRAIN=1007; STRAINE=21192672; PubMed=11287644;	Human immunodeficiency virus type 1. Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID=11676;	01-JUN-2001 (TrEMBLrel. 17, Created) 01-JUN-2001 (TrEMBLrel. 17, Last sequence update) 01-DEC-2001 (TrEMBLrel. 19, Last annotation update) Truncated envelope glycoprotein (Fragment). ENV.	LT 1 A6 Q993A6 PRELIMINARY; PRT; 645 AA.

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Reitz M., Hall L., Robert-Guroff M., Lautenberge Shaw G., Kong L., Weiss S., Warten D., Gallo R., "Viral variability and serum antibody response infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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NCBI_TaxID=11676;
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Submitted (JUL-1994) to EMBL; U12032; AAA76668.1
                                          Mulder K.E.;
                                                                      STRAIN-LW881;
                                                                                                                                    Reitz M., Hall L., Robert-Guroff M., Lautenberger Shaw G., Kong L., Weiss S., Waters D., Gallo R., E "Viral variability and serum antibody response in infected with HIV type I (HTLV type IIIB)."; AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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SEQUENCE
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Reitz M., Hall L., Robert-Guroff M., Lautenberger Shaw G., Kong L., Weiss S., Waters D., Gallo R., B "Viral variability and serum antibody response in infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
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Human immunodeficiency viruses; Retroid viruses; NCBI_TaxID=11676;
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Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDINE-95127297; PubMed-7826699;
MEDINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M., Lautenberger J., Hahn B.,
Shaw G., Kong L., Weiss S., Waters D., Gallo R., Blattner W.;
"Viral variability and serum antibody response in a laboratory worker infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                                                                                               Submitted (JUL-1994) to the EMBL/GenBank/DDBJ databases. EMBL; U12035; AAA76670.1; -
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Envelope
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01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmembrane.
NON_TER 752 752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (JUL-1994) to the EMBL/GenBank/DDBJ EMBL; U12031; AAA76667.1; -. IPR000328; ENV_GP41. InterPro; IPR000777; GP120.
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SEQUENCE
                                                                                                                             SEQUENCE
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PF00517; GP41; 1.
Coat protein; Glyco
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1 Similarity 100.0%;
33; Conservative (
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Q89797;
MEDLINE-95127297; PubMed-7826699;
Reitz M., Hall L., Robert-Guroff M.,
Shaw G., Kong L., Weiss S., Waters D
"Viral variability and serum antibod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00516; GP120; Pfam; PF00517; GP41; JAIDS; Coat protein; Gl
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SEQUENCE FROM N.A.
SHOUTH SERVICE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=89352106; PubMed=2765297; Federico M., Titti F., Butto S., Orecchia A., Macchi B., Mangiano N., Verani P., Rossi G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Carlini F., Federic M., Equestre M.,
Verani P., Rossi G.B.;
"Sequence analysis of HIV-1 proviral
chronically infected HUT-78 cellular
                                                                                                                      Viruses; Retroid
NCBI_TaxID=11676;
                                                                                                                                                                                             Envelope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Variability of HIV-1 virus:
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                                                                                                                                                          Human immunodeficiency virus type 1
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InterPro; IPR000777; GP120.
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                                                                                     SEQUENCE FROM N.A.
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211530; CAA77628.1: -
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Submitted
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                                                                                                                                                                                                                                 gp41 resultis in loss of
lymphocytes.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Production of acquired immretrovirus in human and non molecular clone.";
J. Virol. 59:284-291(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE=86281827;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Viruses; Retroid viruses; NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Envelope polyprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AIDS; Coat protein; Envelope protein; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00516; GP120; Pfam; PF00517; GP41;
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EMBL; U12053; AAA76685.1;
EMBL; U12036; AAA76671.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mulder K.E.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      infected with HIV type 1 (HTLV type IIIB).";
AIDS Res. Hum. Retroviruses 10:1143-1155(1994).
                                                                                                                                            InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
                                                                                                                                                                                       EMBL; M19921; AAA44992.1; -
                                                                                                                                                                                                                                                Maid L.C., Littaua R., Takahasni A.,
Dai L.C., Littaua R., Takahasni A.,
"Mutation of human immunodeficiency
"Mutation of human immunodeficiency
                                                                                                                                                                                                                                                                                                                    MEDLINE-92219406;
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                                                                                                                                                                                                                                                                                                                                                                                                       Buckler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Martin M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human immunodeficiency virus type 1.
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                                                                                                                                                                                                         Virol.
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  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (JUL-1989)
                                                             protein;
854 AA;
                                                                                                                                                                                                         66:3151-3154(1992).
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L-1989) to the
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                                                             Glycoprotein;
97124 MW; ABF
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nonhuman cells transfected with an i
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Pred. No. 1.1e-13;
  Score
Pred.
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                                                             in; Polyprotein; Transmembrane
ABA0A1BF36D5595A CRC64;
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  179;
No. 1
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virus type 1 at amino acid 585
CD8+ A24-restricted cytotoxic 3
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  DB 15;
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                   Length 854;
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Q72502;
01-NOV-1996 (TrEMBLrel. 0
01-NOV-1996 (TrEMBLrel. 0
01-DEC-2001 (TrEMBLrel. 1
                                                                                                                                                                                                                                                          Pfam; PF00515; GP120; J
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; G13
CONFLICT 214 214
CONFLICT 39 530
CONFLICT 739 739
SEQUENCE 854 AA; 970
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092877;
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"Recovery of virtually full-length HIV-1 provirus of diverse subfrom primary virus cultures using the polymerase chain reaction.
                                                                               01-NOV-1998 (TrEMBLrel. 01-NOV-1998 (TrEMBLrel. 01-DEC-2001 (TrEMBLrel.
                                       Simian-Human immunodeficiency virus.
Viruses; Retroid viruses; Retroviridae;
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J. Virol. 59:284-291(1986).
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Viruses; Retroid viruses;
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SEQUENCE FROM N.A. MEDLINE=99098984;
                           Viruses; Retroid viruses;
NCBI_TaxID=57667;
                                                            ENV
                                                                      Envelope
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                                                                                                                                                                                                                                                                                                                                                                                     retrovirus in human and
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Virology 213:80-86(1995).
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33; Conserv
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                                                                                                                         PRELIMINARY;
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PubMed=9882298
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530
739
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es; Retroviridae; Lentivirus
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S -> D (IN REF. 2).
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L (IN REF. 2)
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                                         Lentivirus
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Cayabyab M., Karlsson G.B.,

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RESULT
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Q74599;
Q1-NOV-1996
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EMBL; AF041850; AAD12142.1; -
InterPro; IPR000777; Gp120.
InterPro; IPR000777; Gp120.
Pfam; PF00516; GP120; 1.
Pfam; PF00516; GP120; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein; Transmemb SEQUENCE 856 AA; 97151 MW; C50BE0388FB73659 CRC64;
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                                                                                                       Submitted (JUN-1996) to the EMBL/GenBank/DDBJ EMBL; D86068; BAA12995.1; -
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein;
                                                                                                                                                                                                                                                   Cloyd M.W., Moore B.E.;
"Spectrum of Biological Properties
(HIV-1) Isolates.";
                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
NCBI_TaxID=11676;
                                                                                                                                                                                                                                                                                                                                                                                                 01-DEC-2001
                                                                                              SEQUENCE
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                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Changes in human immunodeficiency virus type 1 responsible for the pathogenicity of a multiply immunodeficiency virus (SHIV-HXBC2).";
J. Virol. 73:976-984(1999).
                                                                                                                                                                                                                                                                                      MEDLINE=90101366; PubMed=1688473;
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LIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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l Similarity 100.0%;
33; Conservative
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                                                                                             856 AA;
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                                               Conservative
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                                                                                            Glycoprotein; Polyprotein; Transmembrane. 97287 MW; 238042A234C56685 CRC64;
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                                            Score 179; DB 15;
Pred. No. 1.1e-13;
Mismatches 0;
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Pred. No. 1.1e-13;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                 of Human
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RESULT Q74090

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RESULT 090178
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O90178;
O1-NOV-1998
O1-NOV-1998
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Q74090;
01-NOV-1996
01-NOV-1996
01-DEC-2001
               immunotoxin-resistant variant T cell line.";
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ
EMBL; AF070521; AAC28452.1;
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
AIDS; Coat protein; Glycoprotein; Polyprotein;
AIDS; Coat protein; Glycoprotein; Polyprotein;
                                                                                                                                                                                                            SEQUENCE FROM N.A.
Fang H., Pincus S.H.
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infected T cells.";
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EMBL: D86069; BAA13003.1; -
InterPro; IPR000328; Env_GP41.
InterPro; IPR000777; GP120.
Pfam; PF00516; GP120; 1.
Pfam; PF00517; GP41; 1.
Pfam; PF00517; GP41; 1.
ALDS; Coat protein; Glycoprotein; Polyprotein; Transmemb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human immunodeficiency virus type 1.
Viruses; Retroid viruses; Retroviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Envelope
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NCBI_TaxID=11676;
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"Unique insertion sequence
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                                                                                                                                                                 Spontaneous activation of human immunodeficiency virus mmunotoxin-resistant variant T cell line.";
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33; Conservative
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854 AA;
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856 AA;
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B.E.;
96885 MW; 08
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Retroviridae;
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                                                                                                                                                                                                                                                                                                                        and pattern of CD4 expression in variants from human immunodeficiency virus type 1-
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Last annotation update)
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Pred. No. 1.1e-13;
; Mismatches 0;
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n; Polyprotein; 0808F3AED27C693B
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                      Transmembrane
CRC64;
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RESULT 15
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                                                                                                             PSEQUENCE FROM N.A.

PSEQUENCE FROM N.A.

MEDLINE=96013815; PubMed=7474132;

A Duensing T.D., Fang H., Dorward D.W., Pincus S.H.;

Processing of the envelope glycoprotein gp160 in immunotoxin-

Tresistant cell lines chronically infected with human immunodeficiency

Virus type 1.";

J. Virol. 69:7122-7131(1995).

REMBL: L42371; AAA96336.1; -.

PRINTEPRO: IPR000328; Env GP41.

PRINTEPRO: IPR000777; GP120.

PRINTEPRO: IPR000777; GP120.

DR Pfam: PF00516; GP120; 1.

DR Pfam: PF00517; GP41; 1.

DR Pfam: PF00517; GP41; 1.

BR PF00517; GP41; 1.

SQ SEQUENCE 854 AA; 97199 MW; 5B9512216533E256 CRC64;
                                                              Query Match
Best Local Similarity
Matches 32; Conserv
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Best Local Similarity
Matches 32; Conserv
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Viruses; Retroid viruses; Retroviridae; Lentivirus
NCBI_TaxID-11676;
Conservative
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                                                                                97.8%;
97.0%;
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                                                               1; Mismatches
                                                                               Score 175; DB 15;
Pred. No. 3.5e-13;
                                                                                            Length 854;
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Maximum DB
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
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2: /cgn2_6/ptodata/1.
3: /cgn2_6/ptodata/1.
4: /cgn2_6/ptodata/1.
5: /cgn2_6/ptodata/1.
6: /cgn2_6/ptodata/1.
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US-09-082-279B-803
US-09-082-279B-803
US-09-082-279B-801
US-09-315-304B-801
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US-08-081-279B-800
US-09-315-304B-800
US-09-315-304B-800
US-09-315-304B-800
US-09-315-304B-800
US-09-315-304B-74
US-08-484-223B-23
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US-09-315-304B-79
US-08-474-349A-416
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US-08-485-099-1
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atch cal Similarit 33; Conse	CURRENT APPLICATION DATA:  APPLICATION NUMBER: US/08/073 FILING DATE: 07-JUN-1993 CLASSIFICATION: 514 ATTORNEY/AGENT INFORMATION: NAME: COTUZEI, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 7872 TELECOMMUNICATION INFORMATION: TELEFAX: (212) 790-9990 TELEFAX: (212) 790-9990 TELEFAX: (6514) PENNIE TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO: 72: SEQUENCE CHARACTERISTICS: SEQUENCE SEQUENC	ARE: Pate	79 100.	179 100.0 179 100.0
100.0%; 100.0%; tive 0	ON DATA: US/08/ BER: US/08/ 7-JUN 193 514 514 FORMATION: LAUTA A. MBER: 30,74 TINFORMATION 2) 790-9090 869-8864/97 ENNIE FORMATION 2) 790-9090 70 700-9090 869-8864/97 ENNIE FORMATION 2) 790-9090 869-8864/97 ENNIE FORMATION 2) 790-9090 869-8864/97 ENNIE FORMATION 300-9090 869-8864/97 ENNIE FORMATION 300-9090 869-8864/97 ENNIE FORMATION 300-9090 869-8864/97	tion US/08073028  : : : : : : : : : : : : : : : : : :	*	
Score 179; Pred. No. ; Mismatch	.028	8 EPTIDE Nericas	ALIGNM	US-08-484-22 US-08-484-22 US-08-4919-59 US-08-471-91 US-08-471-91 US-08-54-61 US-08-54-61 US-09-082-27 US-09-082-27 US-09-082-27 US-09-082-27 US-09-082-27 US-09-082-27
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Length 33; Indels 0;		F HIV	sequence	Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence
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US-08-484-223B-235
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                                                                                                                                                                                    US-08-554-616-72
                                                                                                                                                   Sequence 72, Application US/08554616 Patent No. 6133418
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MOLECULE TYPE:
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                                                                                APPLICANT: APPLICANT:
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LENGTH: 33 amino acids
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                 TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV TITLE OF INVENTION: TRANSMISSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: COruzzi, Laura A.
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TITLE OF INVENTION:
                                    NUMBER OF SEQUENCES:
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Matthews, Thomas J.
Wild, Carl T.
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Pennie & Edmonds
               ADDRESS:
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                                                     Query Match
Best Local Similarity
Matches 33; Conserv
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LENGTH: 33
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Best Local Similarity
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NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                                                                                                       APPLICANT: Lambert, Dennis
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
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                                                                                                                                                                FEATURE:
                                                                                                                                                                              ORGANISM: Artificial Sequence
                                                                                                                                                                                                   TYPE: PRT
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ATTORNEY/AGENT INFORMATION:
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61, Application US/09082279B
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Anwer, Mohmed
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SYSTEM: PC-DOS/MS-DOS
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                                                     100.0%; Score 179; DB 4; 100.0%; Pred. No. 7.7e-16; tive 0; Mismatches 0;
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Pred. No. 7.
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7.7e-16
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SOFTWARE: FastSEQ for
PQ ID NO 639
LENGTH: 33
TYPE: PRT
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CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 801
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Best Local :
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Best Local
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
PITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
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                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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33; Conser
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Merutka, Gene
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Merutka, Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Barney, Shawn
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                                                                                                                               Conservative
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                                                                                                                                           100.0%;
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                                                                                                                                           Score 179; DB 4;
Pred. No. 7.7e-16;
                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                            RESULT 8
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; TOPOLOGY: ur
; MOLECULE TYPE:
US-08-474-349A-417
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Best Local Similarity 100.
Conservative
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APPLICANT: Barney, S.
APPLICANT: Guthrie, K.
APPLICANT: Meritka, G.
APPLICANT: Meritka, G.
APPLICANT: Lambert, M.
APPLICANT: Lambert, D.
TITLE OF INVENTION: PROPERTIES
FILE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
CURRENT APPLICATION NUMBER: US/09/315,304B
CURRENT FILING DATE: 1998-05-20
PRIOR APPLICATION NUMBER: 09/082,279
PRIOR APPLICATION NUMBER: 09/082,279
PRIOR FILING DATE: 1998-05-20
                                                                                                                                                                                                                                                    Sequence 61, Appli
Patent No. 6348568
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OPERATING SYSTEM: PC-D
SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: COTUZZÍ, LAUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 78
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION: NAME: Coruzzi, Laura A.
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COMPUTER READABLE FORM:
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TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS
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(212) 869-9741/8
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Lambert, Dennis M.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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Pred. No. 7.7e-16;
Mismatches 0;
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; OTHER INFORMATION: Core polypeptide US-09-315-304B-61
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SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
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Best Local Similarity
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                                      CURRENT APPLICATION NUMBER: US/09/315,304B CURRENT FILING DATE: 1999-05-20
                                                                            APPLICANT: Lambert, D.
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC TITLE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
                                                                                                                                                    APPLICANT:
                                                                                                                                                                        APPLICANT: Barney, S. APPLICANT: Guthrie, K. APPLICANT: Merutka, G.
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SOFTWARE: FastSEQ for Windows Version 3.0
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PRIOR FILING DATE: 1998-05-20
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TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC TITLE OF INVENTION: PROPERTIES
FILE REFERENCE: 7872-052
                    PRIOR APPLICATION NUMBER: 09/082,279
PRIOR FILING DATE: 1998-05-20
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TYPE: PRT
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APPLICANT: Guthrie, K.
APPLICANT: Merutka, G.
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equence 639, Application US/09315304B
atent No. 6348568
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es 33; Conserv
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                                                                                                                                                                                                                                  INFORMATION:
                                                                                                                                                      Anwer, M.
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Pred. No. 7.
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; TOPOLOGY: ur; MOLECULE TYPE: US-08-073-028-73
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Best Local Similarity 100.0%;
Matches 33; Conservative (
                                                                           Query Match
Best Local Similarity
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                                                             Matches
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 34 amino acids
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FILING DATE: 07-UUN-1993
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                     NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742 REFERENCE/DOCKET NUMBER: 78
                                                                                                                                                                                                                                         TELEFAX: (212) 869-
TELEX: 66141 PENNIE
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                            1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
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LIHSLIEESQNQQEKNEQELLELDKWASLWNWF
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(212) 869-8864/9741
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                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wild, Carl T
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                                                                                                                                                           unknown
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                                                                            100.0%;
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                                                          Score 179; DB 1; 1
Pred. No. 7.9e-16;
Pred. No. 7.9e-16;
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Pred. No. 7.7e-16;
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RESULT 12 US-08-554-616-73

Sequence

73, Application US/08554616

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JS-09-082-279B-800
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                               SOFTWARE: Fa
SEQ ID NO 800
LENGTH: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                    Sequence 800, Application US/09082279B Patent No. 6258782
                                                                             CURRENT APPLICATION NUMBER: US/09/082,279B
CURRENT FILING DATE: 1998-05-20
NUMBER OF SEQ ID NOS: 1515
                                                                                                                                APPLICANT: Lambert, Dennis
TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED
TITLE OF INVENTION: PHARMACOKINETIC PROPERTIES
FILE REFERENCE: 7872-043
                                                                                                                                                                                                 APPLICANT:
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 07-JUN-1993
ATTORNEY/AGENT INFORMATION:
NAME: COTUZZI, Laura A.
REGISTRATION NUMBER: 30,742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 06-NOV-
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS LENGTH: 34 amino acid:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Rel
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/073,028 FILING DATE: 07-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                     1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
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                                                                FastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                   Barney, Shawn
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (212) 790-9090
212) 869-8864/9741
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06-NOV-1995
                                                                                                                                                                                                                                    Kelly
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Pred. No. 7.9e-16;
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US-09-315-304B-800
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Best Local Similarity
Matches 33; Conserv
                                                                                                                                                                                                                                                                                                                                          Sequence 74, Application US/08073028 Patent No. 5464933
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LENGTH: 34
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Best Local :
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/315,304B CURRENT FILING DATE: 199-05-20 PRIOR APPLICATION NUMBER: 09/082,279 PRIOR FILING DATE: 1998-05-20 NUMBER OF SEQ ID NOS: 1667
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Barney, S.
APPLICANT: Guthrie, K.
APPLICANT: Merutka, G.
APPLICANT: Anwer, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: HYBRID POLYPEPTIDES WITH ENHANCED PHARMACOKINETIC TITLE OF INVENTION: PROPERTIES FILE REFERENCE: 7872-052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence
              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                   TITLE OF INVENTION: SYNTHETIC PEPTIDE INHIBITORS OF HIV TITLE OF INVENTION: TRANSMISSION NUMBER OF SEQUENCES: 74
                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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CURRENT APPLICATION DATA:
                                                                                                                                       STREET: LEW York
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Local 51
33;
                                                                                                                                     STATE: New York
                                                                                                                                                                                     ADDRESSEE:
                                                                                                                 COUNTRY:
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                                                                                                     10036
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                                                                                                                                                                       1155 Avenue
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                                                                                                                     USA
                                                                                                                                                                                                                                                                        Wild, Carl T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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Pred. No. 7.9e-16;
; Mismatches 0;
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APPLICATION NUMBER: US/08/073,028
FILING DATE: 07-JUN-1993
CLASSIFICATION: 514
ATTORNBY/AGENT INFORMATION:
NAME: COTUZZI, LBUTA A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7872-004-999
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 74:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: unknown
MOLECULE TYPE: peptide
US-08-073-028-74
                                                                                                           Query Match 100.0%; Score 179; DB 1; Length 35; st Local Similarity 100.0%; Pred. No. 8.2e-16; atches 33; Conservative 0; Mismatches 0; Indels
1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 35
                                                                                                                    0; Gaps
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В Search completed: May 16, 2003, 11:22:12 Job time :  $10.3434\ \text{secs}$ 

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Minimum
Maximum
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed.
                                                                                                                                                                                                                                                                                                                                                                                                                                            and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB seq length: 0
DB seq length: 2000000000
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Match
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179
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Gapop 10.0 , Gapext 0.5
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//cgn2_6/ptcdata/1/pubpaa/US06_NEW_PUB.pep:*
//cgn2_6/ptcdata/1/pubpaa/US06_NEW_PUB.pep:*
//cgn2_6/ptcdata/1/pubpaa/US06_PUBCOMB.pep:*
//cgn2_6/ptcdata/1/pubpaa/US07_NEW_PUB.pep:*
//cgn2_6/ptcdata/1/pubpaa/US07_NEW_PUB.pep:*
//cgn2_6/ptcdata/1/pubpaa/US08_PUBCOMB.pep:*
//cgn2_6/ptcdata/1/pubpaa/US08_PUBCOMB.pep:*
//cgn2_6/ptcdata/1/pubpaa/US09_NEW_PUB.pep:*
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                                                                                                                                                                                                                                                                                                                                                      Length
     GenCore version 5.1.4_p5_4578 (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                      DВ
                                                        US-09-874-475-16
US-09-493-346-1
US-09-796-202-10
US-09-796-202-10
US-09-834-628-1
US-09-854-816-1
US-09-854-816-1
US-09-854-816-1
US-09-854-816-1
US-09-854-816-1
US-09-854-816-1
US-09-779-451-4
US-09-779-451-4
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US-09-779-451-4
US-10-059-271-84
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Sequence 16, Appli
Sequence 1, Appli
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Sequence 10, Appli
Sequence 10, Appli
Sequence 1, Appli
Sequence 17, Appli
Sequence 176, Appli
Sequence 2, Appli
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Sequence 84, Appli
Sequence 81, Appli
Sequence 82, Appli
Sequence 87, Appli
Sequence 97, Appli
Sequence 17, Appli
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RESULT 2 US-10-116-797-: Sequence 1, Publication I GENERAL INFOL APPLICANT: APPLICANT: APPLICANT: TITLE OF IN FILE REFERE CURRENT APPLICANT CURRENT APPLICANT CURRENT APPLICANT CURRENT FILE	Query Ma Best Loc Matches	RESULT 1 US-09-874-475 Sequence 16 Publication GENERAL INFO APPLICANT: APPLIC		20 20 20 20 20 20 20 20 20 20 20 20 20 2
5-797-1 2e 1, A tion N tion N INFOR ZANT: O ZANT: O ZANT: N OF INV TAPPL THE TITLE		1-475-1 1-100 N 1100 N		179 179 179 179 179 179 179 179 179 179
2 2116-797-1 2116-797-	imilarity ; Conservat ; Conservat LIEESQNQQEKN LIEESQNQQEKN	Applical Applical No. US20 No.		100.0 100.0 100.
ation US/10 20030044411 N: William ( ), Paul J. N: METHODS 4672-A N: METHODS	100. ( 100. cvative DEKNEQEL                 DEKNEQEL	US2002018259 TION: Tropoulos, Chr repoulos, Chr rkin, Neil T. itcomb, Jeane ang, Wei TION: COMPOST TION: 2793/65166 ATION NUMBER: DATE: DA		344 345 345 391 8519 853 885 885 861 1110 1110 1120 268 268 268 268 268 268 268 268 268 268
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.6797 DR INHIBITING HIV-1 INFECTION	ttch 100.0%; Score 179; DB 9; Length al Similarity 100.0%; Pred. No. 5.8e-15; 33; Conservative 0; Mismatches 0; Indels LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33	RESULT 1  US-09-874-475-16  US-09-874-475-16  US-09-874-475-16  Sequence 16, Application US/09874475  Publication No. US20020182592A1  GENERAL INFORMATION: APPLICANT: Pertropoulos, Christos J. APPLICANT: Parkin, Neil T. APPLICANT: Whitcomb, Jeanette APPLICANT: Huang, Wei TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR EVALUARY TITLE OF INVENTION: AND INHIBITORS OF VIRUS ENTRY USING FILE REFERENCE: 2793/65166  CURRENT APPLICATION UNMERS: US/09/874,475  CURRENT FILING DATE: 2001-06-04  NUMBER OF SEQ ID NOS: 16  SOFTWARE: Patentin version 3.1  SEQ ID NO 16  LENGTH: 36  TYPE: PRT ORGANISM: Fusion Inhibitor Peptide	ALIGNMENTS	US-10-040-349B-1 US-10-026-741-49 US-10-09-779-451-8 US-10-09-97-745-18 US-10-059-271-93 US-09-756-551A-8 US-10-03-035-3 US-09-03-035-3 US-10-026-741-103 US-10-026-741-103 US-10-03-035-55 US-09-913-824-1 US-09-854-816-19 US-09-854-816-19 US-09-854-816-39 US-09-854-816-39 US-09-854-816-39 US-09-854-816-41 US-09-854-816-41 US-09-854-816-41 US-09-854-816-41 US-09-854-816-43 US-09-854-816-43 US-09-854-816-43 US-09-854-816-43 US-09-854-816-6-9
. NOJ	th 36; els 0; Gaps 0;	FOR EVALUATING VIRAL RECEPTOR/CO-RECE ENTRY USING RECOMBINANT VIRUS ASSAYS		Sequence 1, Appli Sequence 3, Appli Sequence 93, Appli Sequence 93, Appli Sequence 103, Appli Sequence 103, Appli Sequence 103, Appli Sequence 11, Appli Sequence 11, Appli Sequence 12, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 13, Appli Sequence 14, Appli Sequence 24, Appli Sequence 41, Appli Sequence 41, Appli Sequence 41, Appli Sequence 41, Appli Sequence 43, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli

CURRENT FILING DATE:

2002-10-15

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; FEATURE:
; NAME/KEY: PEPTIDE
; LOCATION: (1)..(36)
; OTHER INFORMATION: T.
US-09-796-202-10
                                                                                                                                          NUMBER OF SEQ ID NOS: 17
SOFTWARE: PATENTIN VERSION 3.0
SEQ ID NO 10
LENGTH: 36
TYPE: PRT
ORGANISM: UNKNOWN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: T20 peptide US-09-493-346-1
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Best Local S
Matches 33
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CURRENT FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 5
SOFTWARE: PATENTIN VEY: 2.0
SEQ ID NO 1
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Best Local Similarity
Matches 33; Conserv
Query Match
Best Local
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APPLICANT: Olson, William
TITLE OF INVENTION: SULFATED CCR5 PEPTIDES FOR HIV-1 INFECTION
FILE REFERENCE: 2048/61010/JPW/SHS
CURRENT APPLICATION NUMBER: US/09/796,202
CURRENT FILING DATE: 2001-02-28
                                                                                                                                                                                                                                                                                                                                                                                      Sequence 10, Application US/09796202
Patent No. US20020068813A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Compositions and Methods for Inhibition of HIV-1
TITLE OF INVENTION: Infection
FILE REFERENCE: 61009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Olson, William C APPLICANT: Maddon, Paul J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          equence 1, Application US/09493346 blication No. US20030082185A1 NERAL INFORMATION:
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Local Similarity 100.0%; Pred. No. 5.8e-15;
hes 33; Conservative 0; Mismatches 0;
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100.0%;
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179; DB 10;
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               Length 36;
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; TYPE: PRT
; ORGANISM: Human immunodeficiency virus type
US-09-779-451-5
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US-09-779-451-5
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                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 1
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Best Local :
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                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/834,628
CURRENT FILING DATE: 2001-04-16
PRIOR APPLICATION NUMBER: KR 00-65664
PRIOR FILING DATE: 2000-11-06
NUMBER OF SEQ ID NOS: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: YU, YEON GYU
APPLICANT: KIM, KEY-SUN
APPLICANT: JIN, BONG-SUK
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CURRENT FILING DATE: 2001-08-17
PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
PRIOR FILING DATE: 2000-02-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Allaway, Graham P.
TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: PEPTIDES FOR INHIBITION OF HIV INFECTION FILE REFERENCE: 05823.0198-00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Wild, Carl T. APPLICANT: Allaway, Gra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 77
                                                                                                                                                                      OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: peptide , OTHER INFORMATION: DP178
                                                                                                                                                                                                                                           LENGTH: 36
TYPE: PRT
ORGANISM: Artificial Sequence
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                   1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
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                                                                         Score 179; DB 10;
Pred. No. 5.8e-15;
Mismatches 0;
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Pred. No. 5.8e-15;
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                                                                                                                                                                             Sequence 108, Application US/09854816
Patent No. US20020151473A1
GENERAL INFORMATION:
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Local Similarity 100.0%;
nes 33; Conservative 0
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/854,816
FILING DATE: 15-May-2001
CLASSIFICATION: -Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: Linear MOLECULE TYPE: DP178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown> ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                    TITLE OF INVENTION: Constrained Helical Peptides and Methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE DESCRIPTION: SEQ ID NO: 1:
  NUMBER OF
                                                                                                                                                          APPLICANT: Andrew C. Braisted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: Amino Acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Genentech, Inc. STREET: 1 DNA Way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 36 amino acids
SEQUENCES:
                                                                        J. Kevin Judice
Robert S. McDowell
J. Christopher Phelan
Melissa A. Starovasnik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Andrew C. Braisted
J. Kevin Judice
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J. Christopher Phelan
Melissa A. Starovasnik
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Pred. No. 5.8e-15;
Mismatches 0;
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                                                                     ; OTHER INFORMATION: DP178c peptide US-09-848-616-176
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                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/848,616
CURRENT FILING DATE: 2001-05-05
NUMBER OF SEQ ID NOS: 186
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 176
LENGTH: 37
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 176, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 33; Conserv
Best Local Similarity Matches 33; Conserv
                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                          APPLICANT: Tissot, Alain
APPLICANT: Lechner, Franziska
TITLE OF INVENTION: Molecular /
FILE REFERENCE: 1700.0180002
                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Sebbel, Peter
                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                 TYPE: PRT
                                                                                                             FEATURE:
                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 108:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: 650/225-8674
TELEFAX: 650/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: <Unknown> PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 36 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/965,056 FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/854,816 FILING DATE: 15-May-2001
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                                                                                                                                                                                                                                                                                                                                                 Bachmann, Martin
                                                                                                                                                                                                                                                                                                                                                                      Dunant, Nicolas
                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09848616
b. US20030054010A1
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 Conservative
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1 DNA Way
                 100.0%; Score 179; DB 9; 100.0%; Pred. No. 5.9e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                          lar Antigen Array
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Pred. No. 5.8e-1
 Mismatches
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                                Length 37;
Indels
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Gaps
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0;
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1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33

Вþ

LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 37

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RESULT 12
US-10-040-349B-2
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US-09-779-451-41
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SOFTWARE: PatentIn version 3.0
EQ ID NO 41
LENGTH: 46
TYPE: No.
Sequence 2, Application US/10040349B Publication No. US20030082521A1 GENERAL INFORMATION:
APPLICANT: Brasseur, Robert
                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION
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Patent No. US20020094521A1
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Best Local Similarity
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PRIOR APPLICATION NUMBER: US 60/235,901
PRIOR FILING DATE: 2000-09-28
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CURRENT FILING DATE: 2001-08-17
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TITLE OF INVENTION: Assay for Detection of Viral Fusion Inhibitors
FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 60/181,543 PRIOR FILLING DATE: 2000-02-10 NUMBER OF SEQ ID NOS: 77 SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/779,451
CURRENT FILING DATE: 2001-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Allaway, Graham P. TITLE OF INVENTION: Assay for FILE REFERENCE: 1900.0300003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Wild, APPLICANT: Allay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wild, Carl T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 2000-09-28
PRIOR APPLICATION NUMBER: US 60/181,543
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                                                                                                                                                                                                                                                                                                                        LENGTH: 56
TYPE: PRT
ORGANISM: Human immunodeficiency virus type 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                     1 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 33
                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 46
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                                                                                                                                                                                                                                                 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for Detection of Viral Fusion Inhibitors
                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                   Score 179; DB 10;
Pred. No. 9.1e-15;
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Pred. No. 7.4e-15;
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                                                                                                                                                                                                                                                                     DB 10;
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RESULT 14
US-10-059-271-81
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US-10-059-271-84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 84
LENGTH: 221
TYPE: PRT
ORGANISM: Artificial Sequence
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 2
                                                                             GENERAL INFORMATION:
                                                                                              Sequence 81, Application US/10059271 Publication No. US20030082208A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION: APPLICANT: REPKE, HEINRICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 84, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%; Score 17.9; DB 9; Best Local Similarity 100.0%; Pred. No. 2.9e-14; Matches 33; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                       Best Local
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEFAN
TITLE OF INVENTION: PROTEIN HAVING MULTIPLE ANTIGEN/EPITOPE SEQUENCES
TITLE OF INVENTION: BEING IMMOBILIZED
FILE REFERENCE: ALBRE-22
                  APPLICANT: REPKE, HEINRICH
APPLICANT: BUDDE, ECKHARD
APPLICANT: NICOLAUS, STEF/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: DE 101 06 295
PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 97
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CURRENT FILING DATE: 2002-01-31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 01-078-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Polypeptide Inducing Antibodies Neutralizing HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: Peptide
LOCATION: (1)..(177)
OTHER INFORMATION: polypeptide derived from gp41 LAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 177
TYPE: PRT
ORGANISM: Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                       134 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107 LIHSLIEESQNQQEKNEQELLELDKWASLWNWF 139
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I: NICOLAUS, STEFAN INVENTION: PROTEIN I
                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/10059271
No. US20030082208A1
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                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       Description of Artificial Sequence: Synthetic
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  HAVING
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Pred. No. 3.6e-14;
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MULTIPLE ANTIGEN/EPITOPE SEQUENCES AND
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